

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\l60\_rh\_32chexvivo\_082421\Circle\_Localizer\_TXH

TA: 0:13 PAT: Off Voxel size: 1.9x0.9x5.0 mm Rel. SNR: 1.00 USER: benner/gre\_circle\_tb

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	On
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	240 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	30.0 ms
TE	4.78 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	TXH

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	25 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
-----------------	-----

Phase resolution	50 %
Phase partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Table position	H
Table position	0 mm
Inline Composing	Off
-----	
Tim CT mode	Off

System

TXH	On
H12	Off
H13	Off
H14	Off
H15	Off
H16	Off
H17	Off
H18	Off
H21	Off
H22	Off
H23	Off
H24	Off
H25	Off
H26	Off
H27	Off
H28	Off
H31	Off
H32	Off
H33	Off
H34	Off
H35	Off
H36	Off
H37	Off
H38	Off
H41	Off
H42	Off
H43	Off
H44	Off
H45	Off
H46	Off
H47	Off
H48	Off
-----	
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	On

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Off
-----	
Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off
-----	
Resp. control	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	1

## Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	260 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
-----	
FFT Scale Factor	1.00

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\Circle\_Localizer\_32Ch

TA: 0:13 PAT: Off Voxel size: 1.9x0.9x5.0 mm Rel. SNR: 1.00 USER: benner/gre\_circle\_tb

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	On
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	240 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	30.0 ms
TE	4.78 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	25 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
-----------------	-----

Phase resolution	50 %
Phase partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Table position	H
Table position	0 mm
Inline Composing	Off
-----	
Tim CT mode	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
-----	
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	On

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Off
-----	
Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off
-----	
Resp. control	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	1

## Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	260 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
-----	
FFT Scale Factor	1.00

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\CoilCovariance

TA: 0:23      Voxel size: 0.5x0.5x5.0 mm      Rel. SNR: 1.00      UNKNOWN:

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	0 %
Position	L4.1 P7.0 H8.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	30 ms
TE	6.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	384
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
-----	
Special sat.	None
-----	
Table position	H

Table position      0 mm  
 Inline Composing      Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode      FIX  
 MSMA      S - C - T  
 Sagittal      R >> L  
 Coronal      A >> P  
 Transversal      F >> H  
 Save uncombined      Off  
 Coil Combine Mode      Sum of Squares  
 AutoAlign      ---  
 Auto Coil Select      Default

-----  
 Shim mode      Standard  
 Confirm freq. adjustment      Off  
 Assume Silicone      Off  
 ? Ref. amplitude 1H      0.000 V  
 Adjustment Tolerance      Auto  
 Adjust volume  
     Position      L4.1 P7.0 H8.7  
     Orientation      Transversal  
     Rotation      0.00 deg  
     R >> L      192 mm  
     A >> P      192 mm  
     F >> H      5 mm

Physio

1st Signal/Mode	None
-----	
Inline	
Subtract	Off
Std-Dev-Sag	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

## Sequence

Introduction	Off
Dimension	2D
Contrasts	1
Bandwidth	200 Hz/Px
Gradient mode	Fast
RF spoiling	On
ICE program	CoilArrayUtil
number of noise lines	384 lines
Optimal SNR	Off
GFactor	Off
Condition number	Off
Rx coil diode switching	On
coil channel reordering	Off
TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\l60\_rh\_32chexvivo\_082421\SNRMap

TA: 0:58      Voxel size: 0.5x0.5x5.0 mm      Rel. SNR: 1.00      UNKNOWN:

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	0 %
Position	L5.8 P8.1 H8.1
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	30 ms
TE	6.0 ms
Averages	4
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	384
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
-----	
Special sat.	None
-----	
Table position	H

Table position      0 mm  
 Inline Composing      Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode      FIX  
 MSMA      S - C - T  
 Sagittal      R >> L  
 Coronal      A >> P  
 Transversal      F >> H  
 Save uncombined      Off  
 Coil Combine Mode      Adaptive Combine  
 AutoAlign      ---  
 Auto Coil Select      Default

-----  
 Shim mode      Standard  
 Confirm freq. adjustment      Off  
 Assume Silicone      Off  
 ? Ref. amplitude 1H      0.000 V  
 Adjustment Tolerance      Auto  
 Adjust volume  
   ! Position      L4.1 P7.0 H8.7  
   ! Orientation      Transversal  
   ! Rotation      0.00 deg  
   ! R >> L      192 mm  
   ! A >> P      192 mm  
   ! F >> H      5 mm

Physio

1st Signal/Mode	None
-----	
Inline	
Subtract	Off
Std-Dev-Sag	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	Off
Dimension	2D
Contrasts	1
Bandwidth	200 Hz/Px
Gradient mode	Fast
RF spoiling	On
ICE program	CoilArrayUtil
number of noise lines	384 lines
Optimal SNR	On
GFactor	Off
Condition number	Off
Rx coil diode switching	On
coil channel reordering	Off
TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\SNRMap\_TXH

TA: 0:58

Voxel size: 0.5x0.5x5.0 mm

Rel. SNR: 1.00

UNKNOWN:

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	0 %
Position	L5.8 P8.1 H8.1
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	30 ms
TE	6.0 ms
Averages	4
Concatenations	1
Filter	None
Coil elements	TXH

Contrast

MTC	Off
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	384
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending
Special sat.	None
Table position	H

Table position 0 mm  
 Inline Composing Off

System

TXH	On
H12	Off
H13	Off
H14	Off
H15	Off
H16	Off
H17	Off
H18	Off
H21	Off
H22	Off
H23	Off
H24	Off
H25	Off
H26	Off
H27	Off
H28	Off
H31	Off
H32	Off
H33	Off
H34	Off
H35	Off
H36	Off
H37	Off
H38	Off
H41	Off
H42	Off
H43	Off
H44	Off
H45	Off
H46	Off
H47	Off
H48	Off

Positioning mode FIX  
 MSMA S - C - T  
 Sagittal R >> L  
 Coronal A >> P  
 Transversal F >> H  
 Save uncombined Off  
 Coil Combine Mode Adaptive Combine  
 AutoAlign ---  
 Auto Coil Select Off

Shim mode Tune up  
 Confirm freq. adjustment Off  
 Assume Silicone Off  
 ? Ref. amplitude 1H 0.000 V  
 Adjustment Tolerance Auto  
 Adjust volume  
 Position Isocenter  
 Orientation Transversal  
 Rotation 0.00 deg  
 R >> L 350 mm  
 A >> P 263 mm  
 F >> H 350 mm

Physio

1st Signal/Mode	None
Inline	
Subtract	Off
Std-Dev-Sag	Off

Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	Off
Dimension	2D
Contrasts	1
Bandwidth	200 Hz/Px
Gradient mode	Fast
RF spoiling	On
ICE program	CoilArrayUtil
number of noise lines	384 lines
Optimal SNR	On
GFactor	Off
Condition number	Off
Rx coil diode switching	On
coil channel reordering	Off
TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\l60\_rh\_32chexvivo\_082421\gre\_AFI\_B1\_tb\_60

TA: 1:44 PAT: Off Voxel size: 3.0x3.0x3.0 mm Rel. SNR: 1.00 USER: benner\gre\_AFI\_B1\_2\_tb

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L4.1 P12.2 H4.1
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	56
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	3.00 mm
TR 1	5.8 ms
TR 2	28.0 ms
TE	2.73 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	60 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	64
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L4.1 P12.2 H4.1
Orientation	Coronal

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Rotation	0.00 deg
F >> H	192 mm
R >> L	156 mm
A >> P	168 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off
-----	
Resp. control	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	260 Hz/Px
Flow comp.	No
-----	
RF pulse type	Low SAR
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
-----	
Dummy Scans	6000 ms
Noise Threshold	0
FFT Scale Factor	0.5
Spoiler Scale Factor	1.0
Spoiler Scheme	RS

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\flash20\_800um\_localizer  
 TA: 6:47 PAT: Off Voxel size: 0.8x0.8x0.8 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P11.0 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	176
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.800 mm
TR	11.0 ms
TE	5.40 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	240
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off

Elliptical filter Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off

Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L7.6 P11.0 H6.4
Orientation	Coronal
Rotation	0.00 deg
F >> H	192 mm

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

R >> L	168 mm
A >> P	141 mm

## Physio

1st Signal/Mode	None
Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	180 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	7300 us
Delta echo spacing	100 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	10.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	0
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 1:39:22 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	10.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default

Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L7.6 P12.8 H6.4

Orientation	Coronal
Rotation	0.00 deg
F >> H	192 mm
R >> L	168 mm
A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	0
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off
Lines before seg	0
Lines after seg	32

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	22.5 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	45.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	67.5 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
-----------------	------

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	90.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	112.5 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	135.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	157.5 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	180.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	202.5 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	225.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	247.5 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	270.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	292.5 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	315.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	337.5 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
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# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 6:30 PAT: Off Voxel size: 2.0x2.0x2.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	50
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	2.00 mm
TR	5000.0 ms
TE	4.28 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	360.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	96
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
-----------------	------

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

## Sequence

Introduction	Off
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	1300 Hz/Px
Flow comp.	No
RF pulse type	Low SAR
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us
Delta echo spacing	0 us
Apply echo spacing	Off
Gradient spoiling	Siemens
Gradient moment factor	3
Dummy scans	0 ms
Receiver gain	Low
Autoscale	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\field\_mapping\_2D\_1p2iso\_TR5sec

TA: 20:12

Voxel size: 1.2x1.2x1.2 mm

Rel. SNR: 1.00

USER: benner\gre\_field\_mapping\_tb

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	87
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	75.0 %
Slice thickness	1.20 mm
TR	5000.0 ms
TE 1	2.19 ms
TE 2	3.21 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Flip angle	35 deg
Fat suppr.	None
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	160
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Special sat.	None
Table position	H

Table position 0 mm  
 Inline Composing Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode FIX  
 MSMA S - C - T  
 Sagittal R >> L  
 Coronal A >> P  
 Transversal F >> H  
 Save uncombined Off  
 Coil Combine Mode Sum of Squares  
 AutoAlign ---  
 Auto Coil Select Default

Shim mode Standard  
 Confirm freq. adjustment Off  
 Assume Silicone Off  
 ? Ref. amplitude 1H 0.000 V  
 Adjustment Tolerance Auto  
 Adjust volume  
 ! Position L7.6 P12.8 H6.4  
 ! Orientation Coronal  
 ! Rotation 0.00 deg  
 ! F >> H 192 mm  
 ! R >> L 168 mm  
 ! A >> P 77 mm

Composing

Sequence	
Introduction	On
Dimension	2D
Asymmetric echo	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Contrasts	2
Bandwidth	1302 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 1:39:22 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	10.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L7.6 P12.8 H6.4

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Orientation	Coronal
Rotation	0.00 deg
F >> H	192 mm
R >> L	168 mm
A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	0
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off
Lines before seg	0
Lines after seg	32

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

TA: 1:54:43 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	10.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default

Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L7.6 P12.8 H6.4

Orientation	Coronal
Rotation	0.00 deg
F >> H	192 mm
R >> L	168 mm
A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	1
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off
Lines before seg	32
Lines after seg	32

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TA: 1:54:43

PAT: Off

Voxel size: 0.1x0.1x0.1 mm

Rel. SNR: 1.00

USER: Andre\gre\_mgh\_multiecho\_seg\_7T

## Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

## Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

## Contrast

MTC	Off
Magn. preparation	None
Flip angle	10.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

## Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

## Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

## System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	2
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off
Lines before seg	32
Lines after seg	32

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 1:54:43 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	10.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	3
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off
Lines before seg	32
Lines after seg	32

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

TA: 1:54:43 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	10.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L7.6 P12.8 H6.4

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Orientation	Coronal
Rotation	0.00 deg
F >> H	192 mm
R >> L	168 mm
A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	4
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off
Lines before seg	32
Lines after seg	32

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

TA: 1:54:43 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	10.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L7.6 P12.8 H6.4

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Orientation	Coronal
Rotation	0.00 deg
F >> H	192 mm
R >> L	168 mm
A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	5
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off
Lines before seg	32
Lines after seg	32

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 1:54:43 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	10.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default

Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L7.6 P12.8 H6.4

Orientation	Coronal
Rotation	0.00 deg
F >> H	192 mm
R >> L	168 mm
A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	6
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off
Lines before seg	32
Lines after seg	32

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

TA: 1:39:22 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	10.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L7.6 P12.8 H6.4

Orientation	Coronal
Rotation	0.00 deg
F >> H	192 mm
R >> L	168 mm
A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	7
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off
Lines before seg	32
Lines after seg	0

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\field\_mapping\_2D\_1p2iso\_TR5sec

TA: 20:12

Voxel size: 1.2x1.2x1.2 mm

Rel. SNR: 1.00

USER: benner\gre\_field\_mapping\_tb

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	87
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	75.0 %
Slice thickness	1.20 mm
TR	5000.0 ms
TE 1	2.19 ms
TE 2	3.21 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Flip angle	35 deg
Fat suppr.	None
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	160
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Special sat.	None
Table position	H

Table position 0 mm

Inline Composing Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4
! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

Composing

Sequence	
Introduction	On
Dimension	2D
Asymmetric echo	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Contrasts	2
Bandwidth	1302 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA50\_seg0of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	0
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA50\_seg1of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
-----	
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
-----	
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	1
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA50\_seg2of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	2
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA50\_seg3of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	3
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA50\_seg4of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	4
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA50\_seg5of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
-----	
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
-----	
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	5
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA50\_seg6of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	6
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA50\_seg7of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	50.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	7
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\field\_mapping\_2D\_1p2iso\_TR5sec

TA: 20:12

Voxel size: 1.2x1.2x1.2 mm

Rel. SNR: 1.00

USER: benner\gre\_field\_mapping\_tb

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	87
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	75.0 %
Slice thickness	1.20 mm
TR	5000.0 ms
TE 1	2.19 ms
TE 2	3.21 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Flip angle	35 deg
Fat suppr.	None
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	160
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Special sat.	None
Table position	H

Table position 0 mm

Inline Composing Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode FIX

MSMA S - C - T

Sagittal R >> L

Coronal A >> P

Transversal F >> H

Save uncombined Off

Coil Combine Mode Sum of Squares

AutoAlign ---

Auto Coil Select Default

Shim mode Standard

Confirm freq. adjustment Off

Assume Silicone Off

? Ref. amplitude 1H 0.000 V

Adjustment Tolerance Auto

Adjust volume

! Position L7.6 P12.8 H6.4

! Orientation Coronal

! Rotation 0.00 deg

! F >> H 192 mm

! R >> L 168 mm

! A >> P 77 mm

Composing

Sequence

Introduction	On
Dimension	2D
Asymmetric echo	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Contrasts	2
Bandwidth	1302 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA40\_seg0of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	40.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
-----	
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
-----	
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	0
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA40\_seg1of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	40.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
-----	
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
-----	
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	1
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA40\_seg2of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	40.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	2
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA40\_seg3of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	40.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	3
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA40\_seg4of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	40.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	4
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA40\_seg5of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	40.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
-----	
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
-----	
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	5
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA40\_seg6of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	40.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	6
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA40\_seg7of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	40.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	7
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\field\_mapping\_2D\_1p2iso\_TR5sec

TA: 20:12

Voxel size: 1.2x1.2x1.2 mm

Rel. SNR: 1.00

USER: benner\gre\_field\_mapping\_tb

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	87
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	75.0 %
Slice thickness	1.20 mm
TR	5000.0 ms
TE 1	2.19 ms
TE 2	3.21 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Flip angle	35 deg
Fat suppr.	None
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	160
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Special sat.	None
Table position	H

Table position 0 mm  
 Inline Composing Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode FIX  
 MSMA S - C - T  
 Sagittal R >> L  
 Coronal A >> P  
 Transversal F >> H  
 Save uncombined Off  
 Coil Combine Mode Sum of Squares  
 AutoAlign ---  
 Auto Coil Select Default

Shim mode Standard  
 Confirm freq. adjustment Off  
 Assume Silicone Off  
 ? Ref. amplitude 1H 0.000 V  
 Adjustment Tolerance Auto  
 Adjust volume  
 ! Position L7.6 P12.8 H6.4  
 ! Orientation Coronal  
 ! Rotation 0.00 deg  
 ! F >> H 192 mm  
 ! R >> L 168 mm  
 ! A >> P 77 mm

Composing

Sequence	
Introduction	On
Dimension	2D
Asymmetric echo	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Contrasts	2
Bandwidth	1302 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_seg0of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	0
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_seg1of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	1
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_seg2of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	2
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_seg3of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	3
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_seg4of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	4
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\Circle\_Localizer\_TXH

TA: 0:13 PAT: Off Voxel size: 1.9x0.9x5.0 mm Rel. SNR: 1.00 USER: benner/gre\_circle\_tb

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	On
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	240 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	30.0 ms
TE	4.78 ms
Averages	1
Concatenations	3
Filter	None
Coil elements	TXH

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	25 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
-----------------	-----

Phase resolution	50 %
Phase partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Table position	H
Table position	0 mm
Inline Composing	Off
-----	
Tim CT mode	Off

System

TXH	On
H12	Off
H13	Off
H14	Off
H15	Off
H16	Off
H17	Off
H18	Off
H21	Off
H22	Off
H23	Off
H24	Off
H25	Off
H26	Off
H27	Off
H28	Off
H31	Off
H32	Off
H33	Off
H34	Off
H35	Off
H36	Off
H37	Off
H38	Off
H41	Off
H42	Off
H43	Off
H44	Off
H45	Off
H46	Off
H47	Off
H48	Off
-----	
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	On

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Off
-----	
Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off
-----	
Resp. control	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	1

## Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth	260 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
-----	
FFT Scale Factor	1.00

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\field\_mapping\_2D\_1p2iso\_TR5sec

TA: 20:12

Voxel size: 1.2x1.2x1.2 mm

Rel. SNR: 1.00

USER: benner\gre\_field\_mapping\_tb

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	87
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	75.0 %
Slice thickness	1.20 mm
TR	5000.0 ms
TE 1	2.19 ms
TE 2	3.21 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Flip angle	35 deg
Fat suppr.	None
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	160
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Special sat.	None
Table position	H

Table position 0 mm  
 Inline Composing Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode FIX  
 MSMA S - C - T  
 Sagittal R >> L  
 Coronal A >> P  
 Transversal F >> H  
 Save uncombined Off  
 Coil Combine Mode Sum of Squares  
 AutoAlign ---  
 Auto Coil Select Default

Shim mode Standard  
 Confirm freq. adjustment Off  
 Assume Silicone Off  
 ? Ref. amplitude 1H 0.000 V  
 Adjustment Tolerance Auto  
 Adjust volume  
 ! Position L7.6 P12.8 H6.4  
 ! Orientation Coronal  
 ! Rotation 0.00 deg  
 ! F >> H 192 mm  
 ! R >> L 168 mm  
 ! A >> P 77 mm

Composing

Sequence	
Introduction	On
Dimension	2D
Asymmetric echo	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Contrasts	2
Bandwidth	1302 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_seg5of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	5
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_seg6of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	6
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_seg7of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Positive
Number of segments	8
Start segment	7
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\field\_mapping\_2D\_1p2iso\_TR5sec

TA: 20:12

Voxel size: 1.2x1.2x1.2 mm

Rel. SNR: 1.00

USER: benner\gre\_field\_mapping\_tb

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	87
Dist. factor	0 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	75.0 %
Slice thickness	1.20 mm
TR	5000.0 ms
TE 1	2.19 ms
TE 2	3.21 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Flip angle	35 deg
Fat suppr.	None
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	160
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Special sat.	None
Table position	H

Table position 0 mm

Inline Composing Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode FIX

MSMA S - C - T

Sagittal R >> L

Coronal A >> P

Transversal F >> H

Save uncombined Off

Coil Combine Mode Sum of Squares

AutoAlign ---

Auto Coil Select Default

Shim mode Standard

Confirm freq. adjustment Off

Assume Silicone Off

? Ref. amplitude 1H 0.000 V

Adjustment Tolerance Auto

Adjust volume

! Position L7.6 P12.8 H6.4

! Orientation Coronal

! Rotation 0.00 deg

! F >> H 192 mm

! R >> L 168 mm

! A >> P 77 mm

Composing

Sequence

Introduction	On
Dimension	2D
Asymmetric echo	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Contrasts	2
Bandwidth	1302 Hz/Px
Flow comp.	No
-----	
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_NEG\_seg0of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Negative
Number of segments	8
Start segment	0
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_NEG\_seg1of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Negative
Number of segments	8
Start segment	1
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_NEG\_seg2of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Negative
Number of segments	8
Start segment	2
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_NEG\_seg3of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Negative
Number of segments	8
Start segment	3
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_NEG\_seg4of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
-----	
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
-----	
PAT mode	None
-----	
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
-----	
Saturation mode	Standard
Special sat.	None
-----	
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
-----	
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
-----	
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Negative
Number of segments	8
Start segment	4
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_NEG\_seg5of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Negative
Number of segments	8
Start segment	5
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_NEG\_seg6of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Negative
Number of segments	8
Start segment	6
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl Cases\I60\_rh\_32chexvivo\_082421\GRE\_4e\_120um\_FA20\_NEG\_seg7of7  
 TA: 1:24:00 PAT: Off Voxel size: 0.1x0.1x0.1 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_seg\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	640
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	0.120 mm
TR	45 ms
TE 1	7.00 ms
TE 2	15.00 ms
TE 3	23.00 ms
TE 4	31.00 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1600
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off

Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L7.6 P12.8 H6.4

! Orientation	Coronal
! Rotation	0.00 deg
! F >> H	192 mm
! R >> L	168 mm
! A >> P	77 mm

## Physio

1st Signal/Mode	None
Segments	1
-----	
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
-----	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
-----	
MapIt	None
Contrasts	4

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	140 Hz/Px
Bandwidth 2	140 Hz/Px
Bandwidth 3	140 Hz/Px
Bandwidth 4	140 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Readout mode	Bipolar
-----	
RF pulse type	Low SAR
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
-----	
Readout polarity	Negative
Number of segments	8
Start segment	7
Add. scale factor	2.0
Echo spacing	8000 us
Delta echo spacing	0 us
Apply echo spacing	On
Gradient spoiling	Siemens
Gradient moment factor	1
Dummy scans	0 ms
Receiver gain	Siemens
Autoscale	Off

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 10:39 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	1.000 mm
TR	32 ms
TE 1	5.57 ms
TE 2	8.67 ms
TE 3	11.77 ms
TE 4	14.87 ms
TE 5	17.97 ms
TE 6	21.07 ms
TE 7	24.17 ms
TE 8	27.27 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	10.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	192
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Tune up
Confirm freq. adjustment	Off
Assume Silicone	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

<table border="0" style="width: 100%;"> <tr><td>? Ref. amplitude 1H</td><td>0.000 V</td></tr> <tr><td>Adjustment Tolerance</td><td>Auto</td></tr> <tr><td>Adjust volume</td><td></td></tr> <tr><td>! Position</td><td>Isocenter</td></tr> <tr><td>! Orientation</td><td>Transversal</td></tr> <tr><td>! Rotation</td><td>0.00 deg</td></tr> <tr><td>! R &gt;&gt; L</td><td>350 mm</td></tr> <tr><td>! A &gt;&gt; P</td><td>263 mm</td></tr> <tr><td>! F &gt;&gt; H</td><td>350 mm</td></tr> </table>	? Ref. amplitude 1H	0.000 V	Adjustment Tolerance	Auto	Adjust volume		! Position	Isocenter	! Orientation	Transversal	! Rotation	0.00 deg	! R >> L	350 mm	! A >> P	263 mm	! F >> H	350 mm	<table border="0" style="width: 100%;"> <tr><td>Delta echo spacing</td><td>0 us</td></tr> <tr><td>Apply echo spacing</td><td>Off</td></tr> <tr><td>Gradient spoiling</td><td>Siemens</td></tr> <tr><td>Gradient moment factor</td><td>3</td></tr> <tr><td>Dummy scans</td><td>0 ms</td></tr> <tr><td>Receiver gain</td><td>Low</td></tr> <tr><td>Autoscale</td><td>On</td></tr> </table>	Delta echo spacing	0 us	Apply echo spacing	Off	Gradient spoiling	Siemens	Gradient moment factor	3	Dummy scans	0 ms	Receiver gain	Low	Autoscale	On
? Ref. amplitude 1H	0.000 V																																
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Gradient moment factor	3																																
Dummy scans	0 ms																																
Receiver gain	Low																																
Autoscale	On																																

## Physio

1st Signal/Mode	None
Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	8

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	900 Hz/Px
Bandwidth 2	900 Hz/Px
Bandwidth 3	900 Hz/Px
Bandwidth 4	900 Hz/Px
Bandwidth 5	900 Hz/Px
Bandwidth 6	900 Hz/Px
Bandwidth 7	900 Hz/Px
Bandwidth 8	900 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Flow comp. 5	No
Flow comp. 6	No
Flow comp. 7	No
Flow comp. 8	No
Readout mode	Bipolar
RF pulse type	Normal
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 10:39 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	1.000 mm
TR	32 ms
TE 1	5.57 ms
TE 2	8.67 ms
TE 3	11.77 ms
TE 4	14.87 ms
TE 5	17.97 ms
TE 6	21.07 ms
TE 7	24.17 ms
TE 8	27.27 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Contrast

MTC	Off
Magn. preparation	None
Flip angle	10.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Resolution

Base resolution	192
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None

Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

<table border="0" style="width: 100%;"> <tr><td>? Ref. amplitude 1H</td><td>0.000 V</td></tr> <tr><td>Adjustment Tolerance</td><td>Auto</td></tr> <tr><td>Adjust volume</td><td></td></tr> <tr><td>  Position</td><td>L7.6 P12.8 H6.4</td></tr> <tr><td>  Orientation</td><td>Coronal</td></tr> <tr><td>  Rotation</td><td>0.00 deg</td></tr> <tr><td>  F &gt;&gt; H</td><td>192 mm</td></tr> <tr><td>  R &gt;&gt; L</td><td>156 mm</td></tr> <tr><td>  A &gt;&gt; P</td><td>128 mm</td></tr> </table>	? Ref. amplitude 1H	0.000 V	Adjustment Tolerance	Auto	Adjust volume		Position	L7.6 P12.8 H6.4	Orientation	Coronal	Rotation	0.00 deg	F >> H	192 mm	R >> L	156 mm	A >> P	128 mm	<table border="0" style="width: 100%;"> <tr><td>Delta echo spacing</td><td>0 us</td></tr> <tr><td>Apply echo spacing</td><td>Off</td></tr> <tr><td>Gradient spoiling</td><td>Siemens</td></tr> <tr><td>Gradient moment factor</td><td>3</td></tr> <tr><td>Dummy scans</td><td>0 ms</td></tr> <tr><td>Receiver gain</td><td>Low</td></tr> <tr><td>Autoscale</td><td>On</td></tr> </table>	Delta echo spacing	0 us	Apply echo spacing	Off	Gradient spoiling	Siemens	Gradient moment factor	3	Dummy scans	0 ms	Receiver gain	Low	Autoscale	On
? Ref. amplitude 1H	0.000 V																																
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Gradient moment factor	3																																
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Receiver gain	Low																																
Autoscale	On																																

## Physio

1st Signal/Mode	None
Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	8

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	900 Hz/Px
Bandwidth 2	900 Hz/Px
Bandwidth 3	900 Hz/Px
Bandwidth 4	900 Hz/Px
Bandwidth 5	900 Hz/Px
Bandwidth 6	900 Hz/Px
Bandwidth 7	900 Hz/Px
Bandwidth 8	900 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Flow comp. 5	No
Flow comp. 6	No
Flow comp. 7	No
Flow comp. 8	No
Readout mode	Bipolar
RF pulse type	Normal
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Readout polarity	Negative
Add. scale factor	2.0
Echo spacing	100 us

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 10:39 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	1.000 mm
TR	32 ms
TE 1	5.57 ms
TE 2	8.67 ms
TE 3	11.77 ms
TE 4	14.87 ms
TE 5	17.97 ms
TE 6	21.07 ms
TE 7	24.17 ms
TE 8	27.27 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	5.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	192
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

<table border="0" style="width: 100%;"> <tr><td>? Ref. amplitude 1H</td><td>0.000 V</td></tr> <tr><td>Adjustment Tolerance</td><td>Auto</td></tr> <tr><td>Adjust volume</td><td></td></tr> <tr><td>  Position</td><td>L7.6 P12.8 H6.4</td></tr> <tr><td>  Orientation</td><td>Coronal</td></tr> <tr><td>  Rotation</td><td>0.00 deg</td></tr> <tr><td>  F &gt;&gt; H</td><td>192 mm</td></tr> <tr><td>  R &gt;&gt; L</td><td>156 mm</td></tr> <tr><td>  A &gt;&gt; P</td><td>128 mm</td></tr> </table>	? Ref. amplitude 1H	0.000 V	Adjustment Tolerance	Auto	Adjust volume		Position	L7.6 P12.8 H6.4	Orientation	Coronal	Rotation	0.00 deg	F >> H	192 mm	R >> L	156 mm	A >> P	128 mm	<table border="0" style="width: 100%;"> <tr><td>Delta echo spacing</td><td>0 us</td></tr> <tr><td>Apply echo spacing</td><td>Off</td></tr> <tr><td>Gradient spoiling</td><td>Siemens</td></tr> <tr><td>Gradient moment factor</td><td>3</td></tr> <tr><td>Dummy scans</td><td>0 ms</td></tr> <tr><td>Receiver gain</td><td>Low</td></tr> <tr><td>Autoscale</td><td>On</td></tr> </table>	Delta echo spacing	0 us	Apply echo spacing	Off	Gradient spoiling	Siemens	Gradient moment factor	3	Dummy scans	0 ms	Receiver gain	Low	Autoscale	On
? Ref. amplitude 1H	0.000 V																																
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Gradient moment factor	3																																
Dummy scans	0 ms																																
Receiver gain	Low																																
Autoscale	On																																

## Physio

1st Signal/Mode	None
Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	8

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	900 Hz/Px
Bandwidth 2	900 Hz/Px
Bandwidth 3	900 Hz/Px
Bandwidth 4	900 Hz/Px
Bandwidth 5	900 Hz/Px
Bandwidth 6	900 Hz/Px
Bandwidth 7	900 Hz/Px
Bandwidth 8	900 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Flow comp. 5	No
Flow comp. 6	No
Flow comp. 7	No
Flow comp. 8	No
Readout mode	Bipolar
RF pulse type	Normal
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 10:39 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	1.000 mm
TR	32 ms
TE 1	5.57 ms
TE 2	8.67 ms
TE 3	11.77 ms
TE 4	14.87 ms
TE 5	17.97 ms
TE 6	21.07 ms
TE 7	24.17 ms
TE 8	27.27 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	15.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	192
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

<table border="0" style="width: 100%;"> <tr><td>? Ref. amplitude 1H</td><td>0.000 V</td></tr> <tr><td>Adjustment Tolerance</td><td>Auto</td></tr> <tr><td>Adjust volume</td><td></td></tr> <tr><td>  Position</td><td>L7.6 P12.8 H6.4</td></tr> <tr><td>  Orientation</td><td>Coronal</td></tr> <tr><td>  Rotation</td><td>0.00 deg</td></tr> <tr><td>  F &gt;&gt; H</td><td>192 mm</td></tr> <tr><td>  R &gt;&gt; L</td><td>156 mm</td></tr> <tr><td>  A &gt;&gt; P</td><td>128 mm</td></tr> </table>	? Ref. amplitude 1H	0.000 V	Adjustment Tolerance	Auto	Adjust volume		Position	L7.6 P12.8 H6.4	Orientation	Coronal	Rotation	0.00 deg	F >> H	192 mm	R >> L	156 mm	A >> P	128 mm	<table border="0" style="width: 100%;"> <tr><td>Delta echo spacing</td><td>0 us</td></tr> <tr><td>Apply echo spacing</td><td>Off</td></tr> <tr><td>Gradient spoiling</td><td>Siemens</td></tr> <tr><td>Gradient moment factor</td><td>3</td></tr> <tr><td>Dummy scans</td><td>0 ms</td></tr> <tr><td>Receiver gain</td><td>Low</td></tr> <tr><td>Autoscale</td><td>On</td></tr> </table>	Delta echo spacing	0 us	Apply echo spacing	Off	Gradient spoiling	Siemens	Gradient moment factor	3	Dummy scans	0 ms	Receiver gain	Low	Autoscale	On
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Receiver gain	Low																																
Autoscale	On																																

## Physio

1st Signal/Mode	None
Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	8

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	900 Hz/Px
Bandwidth 2	900 Hz/Px
Bandwidth 3	900 Hz/Px
Bandwidth 4	900 Hz/Px
Bandwidth 5	900 Hz/Px
Bandwidth 6	900 Hz/Px
Bandwidth 7	900 Hz/Px
Bandwidth 8	900 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Flow comp. 5	No
Flow comp. 6	No
Flow comp. 7	No
Flow comp. 8	No
Readout mode	Bipolar
RF pulse type	Normal
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 10:39 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	1.000 mm
TR	32 ms
TE 1	5.57 ms
TE 2	8.67 ms
TE 3	11.77 ms
TE 4	14.87 ms
TE 5	17.97 ms
TE 6	21.07 ms
TE 7	24.17 ms
TE 8	27.27 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	20.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	192
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

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## Physio

1st Signal/Mode	None
Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	8

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	900 Hz/Px
Bandwidth 2	900 Hz/Px
Bandwidth 3	900 Hz/Px
Bandwidth 4	900 Hz/Px
Bandwidth 5	900 Hz/Px
Bandwidth 6	900 Hz/Px
Bandwidth 7	900 Hz/Px
Bandwidth 8	900 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Flow comp. 5	No
Flow comp. 6	No
Flow comp. 7	No
Flow comp. 8	No
Readout mode	Bipolar
RF pulse type	Normal
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 10:39 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	1.000 mm
TR	32 ms
TE 1	5.57 ms
TE 2	8.67 ms
TE 3	11.77 ms
TE 4	14.87 ms
TE 5	17.97 ms
TE 6	21.07 ms
TE 7	24.17 ms
TE 8	27.27 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	25.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	192
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

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## Physio

1st Signal/Mode	None
Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	8

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	900 Hz/Px
Bandwidth 2	900 Hz/Px
Bandwidth 3	900 Hz/Px
Bandwidth 4	900 Hz/Px
Bandwidth 5	900 Hz/Px
Bandwidth 6	900 Hz/Px
Bandwidth 7	900 Hz/Px
Bandwidth 8	900 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Flow comp. 5	No
Flow comp. 6	No
Flow comp. 7	No
Flow comp. 8	No
Readout mode	Bipolar
RF pulse type	Normal
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us

SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\INVESTIGATORS\Fischl

TA: 10:39 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: Andre\gre\_mgh\_multiecho\_7T

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L7.6 P12.8 H6.4
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
FoV read	192 mm
FoV phase	81.3 %
Slice thickness	1.000 mm
TR	32 ms
TE 1	5.57 ms
TE 2	8.67 ms
TE 3	11.77 ms
TE 4	14.87 ms
TE 5	17.97 ms
TE 6	21.07 ms
TE 7	24.17 ms
TE 8	27.27 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	H12-18,21-28,31-38,41-48

Contrast

MTC	Off
Magn. preparation	None
Flip angle	30.0 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	192
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

TXH	Off
H12	On
H13	On
H14	On
H15	On
H16	On
H17	On
H18	On
H21	On
H22	On
H23	On
H24	On
H25	On
H26	On
H27	On
H28	On
H31	On
H32	On
H33	On
H34	On
H35	On
H36	On
H37	On
H38	On
H41	On
H42	On
H43	On
H44	On
H45	On
H46	On
H47	On
H48	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default

Shim mode	Standard
Confirm freq. adjustment	Off
Assume Silicone	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

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## Physio

1st Signal/Mode	None
Segments	1
Tagging	None
Dark blood	Off

## Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	8

## Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	900 Hz/Px
Bandwidth 2	900 Hz/Px
Bandwidth 3	900 Hz/Px
Bandwidth 4	900 Hz/Px
Bandwidth 5	900 Hz/Px
Bandwidth 6	900 Hz/Px
Bandwidth 7	900 Hz/Px
Bandwidth 8	900 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Flow comp. 3	No
Flow comp. 4	No
Flow comp. 5	No
Flow comp. 6	No
Flow comp. 7	No
Flow comp. 8	No
Readout mode	Bipolar
RF pulse type	Normal
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Readout polarity	Positive
Add. scale factor	2.0
Echo spacing	100 us

## Table of contents

\USER

## INVESTIGATORS

## Fischl Cases

I60\_rh\_32chexvivo\_082421

Circle\_Localizer\_TXH

Circle\_Localizer\_32Ch

CoilCovariance

SNRMap

SNRMap\_TXH

gre\_AFI\_B1\_tb\_60

flash20\_800um\_localizer

START/STOP\_GRE\_4e\_120um\_FA10\_seg0of7\_WARMUP

START/STOP\_GRE\_4e\_FA10\_warmup\_seg0of7\_overlap32

gre\_1echo\_2mm\_PA\_FA22p5\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA45\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA67p5\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA90\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA112p5\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA135\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA157p5\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA180\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA202p5\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA225\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA247p5\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA270\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA292p5\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA315\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA337p5\_TR5s\_lowSAR

gre\_1echo\_2mm\_PA\_FA360\_TR5s\_lowSAR

[overlapping scans (FA10)]

field\_mapping\_2D\_1p2iso\_TR5sec

GRE\_4e\_FA10\_warmup\_seg0of7\_overlap32

GRE\_4e\_FA10\_warmup\_seg1of7\_overlap32

GRE\_4e\_FA10\_warmup\_seg2of7\_overlap32

GRE\_4e\_FA10\_warmup\_seg3of7\_overlap32

GRE\_4e\_FA10\_warmup\_seg4of7\_overlap32

GRE\_4e\_FA10\_warmup\_seg5of7\_overlap32

GRE\_4e\_FA10\_warmup\_seg6of7\_overlap32

GRE\_4e\_FA10\_warmup\_seg7of7\_overlap32

[----FA 50----]

field\_mapping\_2D\_1p2iso\_TR5sec

GRE\_4e\_120um\_FA50\_seg0of7

GRE\_4e\_120um\_FA50\_seg1of7

GRE\_4e\_120um\_FA50\_seg2of7

GRE\_4e\_120um\_FA50\_seg3of7

GRE\_4e\_120um\_FA50\_seg4of7

GRE\_4e\_120um\_FA50\_seg5of7

GRE\_4e\_120um\_FA50\_seg6of7

GRE\_4e\_120um\_FA50\_seg7of7

[----FA40----]

field\_mapping\_2D\_1p2iso\_TR5sec

GRE\_4e\_120um\_FA40\_seg0of7

GRE\_4e\_120um\_FA40\_seg1of7

GRE\_4e\_120um\_FA40\_seg2of7

GRE\_4e\_120um\_FA40\_seg3of7

GRE\_4e\_120um\_FA40\_seg4of7

GRE\_4e\_120um\_FA40\_seg5of7

GRE\_4e\_120um\_FA40\_seg6of7

GRE\_4e\_120um\_FA40\_seg7of7

[----FA20 pos ----]

field\_mapping\_2D\_1p2iso\_TR5sec

GRE\_4e\_120um\_FA20\_seg0of7

GRE\_4e\_120um\_FA20\_seg1of7

GRE\_4e\_120um\_FA20\_seg2of7

\\USER

INVESTIGATORS

Fischl Cases

I60\_rh\_32chexvivo\_082421

GRE\_4e\_120um\_FA20\_seg3of7  
 GRE\_4e\_120um\_FA20\_seg4of7  
 [---patient reregistered---]  
 Circle\_Localizer\_TXH  
 field\_mapping\_2D\_1p2iso\_TR5sec  
 GRE\_4e\_120um\_FA20\_seg5of7  
 GRE\_4e\_120um\_FA20\_seg6of7  
 GRE\_4e\_120um\_FA20\_seg7of7  
 [----FA20 neg----]  
 field\_mapping\_2D\_1p2iso\_TR5sec  
 GRE\_4e\_120um\_FA20\_NEG\_seg0of7  
 GRE\_4e\_120um\_FA20\_NEG\_seg1of7  
 GRE\_4e\_120um\_FA20\_NEG\_seg2of7  
 GRE\_4e\_120um\_FA20\_NEG\_seg3of7  
 GRE\_4e\_120um\_FA20\_NEG\_seg4of7  
 GRE\_4e\_120um\_FA20\_NEG\_seg5of7  
 GRE\_4e\_120um\_FA20\_NEG\_seg6of7  
 GRE\_4e\_120um\_FA20\_NEG\_seg7of7  
 [---Low Res---]  
 gre\_8echo\_1mm\_10deg\_deltaTE3p2\_autoscale  
 gre\_8echo\_1mm\_10deg\_deltaTE3p2\_roNEG\_autoscale  
 gre\_8echo\_1mm\_05deg\_deltaTE3p2\_autoscale  
 gre\_8echo\_1mm\_15deg\_deltaTE3p2\_autoscale  
 gre\_8echo\_1mm\_20deg\_deltaTE3p2\_autoscale  
 gre\_8echo\_1mm\_25deg\_deltaTE3p2\_autoscale  
 gre\_8echo\_1mm\_30deg\_deltaTE3p2\_autoscale