SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\UserProtocols\Renzo\VASO_training_session\3D_Localizer_250V

TA: 0:23 PAT: 2 Voxel size: 1.2×1.1×3.0 mm Rel. SNR: 1.00 SIEMENS: gre

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	On
Start measurements	single

Routine

Slice group 1	
Slices	15
Dist. factor	100 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	5
Dist. factor	100 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Slice group 3	
Slices	5
Dist. factor	100 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	280 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	8.6 ms
TE	2.89 ms
Averages	1
Concatenations	25
Filter	Elliptical filter
Coil elements	A32

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 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	90 %
Phase partial Fourier	6/8
Interpolation	On
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

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

System

V32	Off
A32	On
Positioning mode	REF
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	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 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	Allowed
Bandwidth	320 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\UserProtocols\Renzo\VASO_training_session\Quin_pilot_250_V1

TA: 1:05 PAT: Off Voxel size: 1.0×1.0×5.0 mm Rel. SNR: 1.00 SIEMENS: tfl

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	9
Dist. factor	80 %
Position	R4.0 A16.1 F1.1
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	5
Dist. factor	80 %
Position	L0.0 A16.7 H16.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	7
Dist. factor	80 %
Position	L0.0 P29.8 F0.6
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	3000 ms
TE	3.17 ms
Averages	1
Concatenations	21
Filter	None
Coil elements	A32

Contrast

TD	0 ms
Magn. preparation	Slice-sel. IR
TI	1100 ms
Flip angle	6 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	192
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	Sequential
Series	Ascending
Table position	H
Table position	0 mm
Inline Composing	Off

System

V32	Off
A32	On
Positioning mode	REF
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	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	220.000 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
Dark blood	Off
Resp. control	Off

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	On
Dimension	2D
Asymmetric echo	Off
Bandwidth	240 Hz/Px
Flow comp.	No
Echo spacing	6.4 ms
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On

\\USER\UserProtocols\Renzo\VASO_training_session\26_slices_assym_TR5s_Version_129_291trs

TA: 0:14 PAT: 3 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: VASO_124

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	50 %
Position	R1.4 A21.2 F2.4
Orientation	T > C-15.9
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	7.7 %
Slices per slab	26
FoV read	133.0 mm
FoV phase	133.3 %
Slice thickness	0.82 mm
TR	2837.90 ms
TE	25 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

Perfusion mode	SS-SI VASO
TI2	650 ms
TI1	50 ms
TI1s	50 ms
Flip angle	26 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	5
Delay in TR	0 ms
Multiple series	Off
Perfusion mode	PICORE Q2T
Inversion time 1	50 ms
Saturation stop time	50 ms
Inversion time 2	650.0 ms
Flow limit	100 cm/s

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	45
Accel. factor 3D	1
Ref. lines 3D	22
Reference scan mode	Separate
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Special sat.	Parallel F
Gap	25.0 mm
Thickness	100 mm
Table position	H
Table position	0 mm
Inline Composing	Off

System

V32	Off
A32	On
Positioning mode	REF
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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	Isocenter
! Orientation	Transversal
! Rotation	90.00 deg
! A >> P	178 mm
! R >> L	133 mm
! F >> H	22 mm

Physio

1st Signal/Mode	None

BOLD

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Bandwidth	1064 Hz/Px
Free echo spacing	Off
Echo spacing	1.04 ms
EPI factor	216

RF pulse type	Normal
Gradient mode	Normal
Excitation	Slab-sel.
RF spoiling	On
Ampl	150
BWDTH	150 3.1kHz
ph.skip 4 Robert (the one)	1
use Ernst angle	Off
Maxwell Correction	Off
log physio files	Off
FFT scale	3.00
dummy prepscan time	3 s
z shim	0.00 mT/m*ms
RF duration	2000 us
RF BWTP	25.0
Renzo: Delta TI	75 ms
EFFECTIVE TR	79461 ms
PatPartitions	28
EPI phase correction	local
PAT refscan mode	Flash
FlashRef BaseRes	162
FlashRef BW	100 Hz/px
FlashRef TE	6500 us
FlashRef FA	5 deg
use CAIPI	Off

\\USER\UserProtocols\Renzo\VASO_training_session\MP2RAGE_slab_0.5x05x0.5_T1_POCS8

TA: 16:14 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: tfl_wip900b17a

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	50 %
Position	R1.4 A23.8 F4.1
Orientation	T > C-14.0
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	72
FoV read	191 mm
FoV phase	100.0 %
Slice thickness	0.50 mm
TR	6000 ms
TE	4.16 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

Magn. preparation	Non-sel. IR
TI 1	900 ms
TI 2	2900 ms
Flip angle 1	6 deg
Flip angle 2	7 deg
Fat suppr.	None
Water suppr.	None
2nd Inversion Contrast	On
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	3
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Multiple series	Each measurement

Resolution

Base resolution	380
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	6/8
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Single shot
Series	Interleaved
Table position	H
Table position	0 mm
Inline Composing	Off

System

V32	Off
A32	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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	277.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L0.0 A28.5 F2.6
! Orientation	T > C-12.8
! Rotation	90.00 deg
! A >> P	178 mm
! R >> L	133 mm
! F >> H	36 mm

Physio

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

Composing

Sequence

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Off
Contrasts	1
Bandwidth	190 Hz/Px
Flow comp.	No
Echo spacing	8.5 ms
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
FFT Scale Factor	150 %
Morphometry Analysis	Off

FID MoCo Logging	Off
FID Coil Phase Corr.	Off
LIN/PAR Swap	On
Ext. INV Pulse	On
Flip Angle	1400
Phase Filter	0 px
Uniform Image	On
Head Mask on UNI	Off
T1 Map	On
Complex Div. Image	On
Denoise Weighting	150
FLAWS	Off

\\USER\UserProtocols\Renzo\VASO_training_session\epi_sms3_ip2_2mm_taapping_15s vs 15s

TA: 6:18 PAT: 2 Voxel size: 2.0×2.0×2.0 mm Rel. SNR: 1.00 USER: ep2d_bold_sms_mgh_v22

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	57
Dist. factor	0 %
Position	L0.0 A19.0 H6.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	195 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	1000 ms
TE	23 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

MTC	Off
Flip angle	65 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	360
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	98
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

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

System

V32	Off
A32	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R6.3 A29.3 H24.5
! Orientation	T > C3.0
! Rotation	0.00 deg
! R >> L	120 mm
! A >> P	162 mm
! F >> H	50 mm

Physio

1st Signal/Mode	None

BOLD

GLM Statistics	On
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	1
Model transition states	Off
Temp. highpass filter	On
Threshold	4.00
Paradigm size	30
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Baseline
Meas[12]	Baseline
Meas[13]	Baseline
Meas[14]	Baseline
Meas[15]	Baseline
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Meas[21]	Active
Meas[22]	Active

Meas[23]	Active
Meas[24]	Active
Meas[25]	Active
Meas[26]	Active
Meas[27]	Active
Meas[28]	Active
Meas[29]	Active
Meas[30]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1890 Hz/Px
Free echo spacing	Off
Echo spacing	0.63 ms
EPI factor	98
RF pulse type	Normal
Gradient mode	Fast
Dummy Scans	3
Dummy Scans	4
SMS Factor	3
RF Clip	0
VERSE Factor	1.00
SMS Shift	2
Kernel Size	5x5
Compression Factor	1.00

\\USER\UserProtocols\Renzo\VASO_training_session\MB3_HAB_1.3mm_PAT2_2s50ms_FC_Phase AP

TA: 1:39 PAT: 2 Voxel size: 1.5×1.5×2.0 mm Rel. SNR: 1.00 USER: cmrr_mbep2d_bold

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	48
Dist. factor	0 %
Position	R4.2 A21.2 F6.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	1000 ms
TE	25.0 ms
Multi-band accel. factor	3
Filter	None
Coil elements	A32

Contrast

MTC	Off
Magn. preparation	None
Flip angle	55 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	83
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

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

System

V32	Off
A32	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.2 A21.2 F6.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	96 mm

Physio

1st Signal/Mode	None

BOLD

GLM Statistics	On
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	30
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Baseline
Meas[12]	Baseline
Meas[13]	Baseline
Meas[14]	Baseline
Meas[15]	Baseline
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Meas[21]	Active
Meas[22]	Active

Meas[23]	Active
Meas[24]	Active
Meas[25]	Active
Meas[26]	Active
Meas[27]	Active
Meas[28]	Active
Meas[29]	Active
Meas[30]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Contrasts	1
Bandwidth	1776 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	0.72 ms
EPI factor	128
Gradient mode	Fast*
RF spoiling	Off
Excite pulse duration	5000 us
Single-band images	Off
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	On
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	0.50
GRE iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\UserProtocols\Renzo\VASO_training_session_VASO_FA4_VASO_122_template

TA: 15:22 PAT: 3 Voxel size: 0.8×0.8×1.3 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

Slab group 1	
Slabs	1
Dist. factor	50 %
Position	R41.9 A8.1 H9.4
Orientation	T > S39.8 > C-12.8
Phase enc. dir.	P >> A
Rotation	180.00 deg
Phase oversampling	0 %
Slice oversampling	9.1 %
Slices per slab	22
FoV read	130.0 mm
FoV phase	100.0 %
Slice thickness	1.28 mm
TR	2287.30 ms
TE	32 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

Perfusion mode	SS-SI VASO
TI2	700 ms
TI1	50 ms
TI1s	50 ms
Flip angle	4 deg
Fat suppr.	Fat sat.
Fat sat. mode	Weak
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	403
Delay in TR	0 ms
Multiple series	Off
Perfusion mode	PICORE Q2T
Inversion time 1	50 ms
Saturation stop time	50 ms
Inversion time 2	700.0 ms
Flow limit	100 cm/s

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	36
Accel. factor 3D	1
Ref. lines 3D	24
Reference scan mode	Separate
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Special sat.	Parallel F
Gap	25.0 mm
Thickness	100 mm
Table position	H
Table position	0 mm
Inline Composing	Off

System

V32	Off
A32	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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R36.6 A8.0 H7.8
! Orientation	T > C-9.1 > S0.9
! Rotation	0.08 deg
! R >> L	86 mm
! A >> P	136 mm
! F >> H	58 mm

Physio

1st Signal/Mode	None

BOLD

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Bandwidth	1144 Hz/Px
Free echo spacing	Off
Echo spacing	1 ms
EPI factor	162

RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Ampl	150
BWDTH	150 3.1kHz
ph.skip 4 Robert (the one)	30
use Ernst angle	Off
Maxwell Correction	Off
log physio files	Off
FFT scale	2.00
dummy prepscan time	3 s
z shim	0.00 mT/m*ms
RF duration	1900 us
RF BWTP	25.0
Renzo: Delta TI	63 ms
EFFECTIVE TR	54895 ms
PatPartitions	24
EPI phase correction	local
PAT refscan mode	Flash
FlashRef BaseRes	162
FlashRef BW	100 Hz/px
FlashRef TE	10000 us
FlashRef FA	5 deg
use CAIPI	Off

\\USER\UserProtocols\Renzo\VASO_training_session\small_FOV_3DVASO_ONE_Hemisphere_GRAPPA2_P

TA: 0:19 PAT: 2 Voxel size: 0.7×0.7×1.8 mm Rel. SNR: 1.00 USER: VASO_109

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	50 %
Position	L29.8 P1.9 H31.0
Orientation	T > S-22.8 > C-5.5
Phase enc. dir.	R >> L
Rotation	120.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	12
FoV read	32.8 mm
FoV phase	300.0 %
Slice thickness	1.80 mm
TR	1697.80 ms
TE	24 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

Perfusion mode	Picore Q2TIPS
TI2	800 ms
TI1	50 ms
TI1s	50 ms
Flip angle	27 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	11
Delay in TR	0 ms
Multiple series	Off
Perfusion mode	PICORE Q2T
Inversion time 1	50 ms
Saturation stop time	50 ms
Inversion time 2	800.0 ms
Flow limit	100.0 cm/s

Resolution

Base resolution	44
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Ref. lines 3D	8
Reference scan mode	Separate
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Special sat.	Parallel F
Gap	25.0 mm
Thickness	100 mm
Table position	H
Table position	0 mm
Inline Composing	Off

System

V32	Off
A32	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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L24.9 P2.2 H31.4
! Orientation	S > T0.7
! Rotation	-0.26 deg
! F >> H	60 mm
! A >> P	72 mm
! R >> L	85 mm

Physio

1st Signal/Mode	None

BOLD

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Bandwidth	1042 Hz/Px
Free echo spacing	Off
Echo spacing	1.08 ms
EPI factor	132

RF pulse type	Normal
Gradient mode	Normal
Excitation	Slab-sel.
RF spoiling	On
Ampl	110
BWDTH	150 3.1kHz
thickness	30
use Ernst angle	Off
Maxwell Correction	Off
log physio files	Off
FFT scale	1.00
dummy prepscan time	3 s
z shim	0.00 mT/m*ms
RF duration	2560 us
RF BWTP	25.0
EFFECTIVE TR	20373 ms
PatPartitions	12
EPI phase correction	local
PAT refscan mode	Flash
FlashRef BaseRes	44
FlashRef BW	1000 Hz/px
FlashRef TE	4800 us
FlashRef FA	5 deg
use CAIPI	Off

\\USER\UserProtocols\Renzo\VASO_training_session\MP2RAGE_slab_0.5x05x0.5_T1_POCS8

TA: 16:14 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: tfl_wip900b17a

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	50 %
Position	R29.7 A24.9 H37.7
Orientation	T > S34.7 > C0.1
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	72
FoV read	161 mm
FoV phase	100.0 %
Slice thickness	0.50 mm
TR	6000 ms
TE	4.13 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

Magn. preparation	Non-sel. IR
TI 1	900 ms
TI 2	2900 ms
Flip angle 1	6 deg
Flip angle 2	7 deg
Fat suppr.	None
Water suppr.	None
2nd Inversion Contrast	On
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	3
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Multiple series	Each measurement

Resolution

Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	6/8
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Single shot
Series	Interleaved
Table position	H
Table position	0 mm
Inline Composing	Off

System

V32	Off
A32	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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	277.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R33.3 A18.6 H34.3
! Orientation	T > C-2.3
! Rotation	0.00 deg
! R >> L	83 mm
! A >> P	152 mm
! F >> H	65 mm

Physio

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

Composing

Sequence

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Off
Contrasts	1
Bandwidth	190 Hz/Px
Flow comp.	No
Echo spacing	8.4 ms
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
FFT Scale Factor	150 %
Morphometry Analysis	Off

FID MoCo Logging	Off
FID Coil Phase Corr.	Off
LIN/PAR Swap	On
Ext. INV Pulse	On
Flip Angle	1400
Phase Filter	0 px
Uniform Image	On
Head Mask on UNI	Off
T1 Map	On
Complex Div. Image	On
Denoise Weighting	150
FLAWS	Off

\\USER\UserProtocols\Renzo\VASO_training_session\MP2RAGE_slab_0.4x04x1.2_T1

TA: 2:26 PAT: 2 Voxel size: 0.4×0.4×1.2 mm Rel. SNR: 1.00 USER: tfl_wip900b17a

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	50 %
Position	R30.1 P0.3 H28.1
Orientation	T > S30.8 > C-11.5
Phase enc. dir.	R >> L
Rotation	60.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	32
FoV read	140 mm
FoV phase	100.0 %
Slice thickness	1.20 mm
TR	6000 ms
TE	4.23 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

Magn. preparation	Non-sel. IR
TI 1	900 ms
TI 2	2900 ms
Flip angle 1	6 deg
Flip angle 2	7 deg
Fat suppr.	None
Water suppr.	None
2nd Inversion Contrast	On
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	6/8
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Single shot
Series	Interleaved
Table position	H
Table position	0 mm
Inline Composing	Off

System

V32	Off
A32	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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	277.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R26.7 A7.7 H20.0
! Orientation	Transversal
! Rotation	0.00 deg
! R >> L	89 mm
! A >> P	64 mm
! F >> H	58 mm

Physio

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

Composing

Sequence

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Off
Contrasts	1
Bandwidth	190 Hz/Px
Flow comp.	No
Echo spacing	8.6 ms
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
FFT Scale Factor	150 %
Morphometry Analysis	Off
FID MoCo Logging	Off
FID Coil Phase Corr.	Off

LIN/PAR Swap	On
Ext. INV Pulse	On
Flip Angle	1400
Phase Filter	0 px
Uniform Image	On
Head Mask on UNI	Off
T1 Map	On
Complex Div. Image	On
Denoise Weighting	150
FLAWS	Off

\\USER\UserProtocols\Renzo\VASO_training_session\highres_gre_768x576_2echo_a30

TA: 15:58 PAT: 2 Voxel size: 0.4×0.4×0.4 mm Rel. SNR: 1.00 SIEMENS: gre

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	R34.0 A20.0 H42.2
Orientation	T > S41.5 > C2.1
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	80
FoV read	140 mm
FoV phase	100.0 %
Slice thickness	0.44 mm
TR	35 ms
TE 1	8.50 ms
TE 2	23.20 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

MTC	Off
Magn. preparation	None
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	2
Pause after meas. 1	0.0 s
Multiple series	Each measurement

Resolution

Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Reference scan mode	Integrated

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

V32	Off
A32	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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R31.3 A19.1 H33.8
! Orientation	T > S42.1
! Rotation	0.07 deg
! R >> L	106 mm
! A >> P	154 mm
! F >> H	47 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	2

Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	80 Hz/Px
Bandwidth 2	60 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Readout mode	Bipolar
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

\\USER\UserProtocols\Renzo\VASO_training_session\Faster_gre_768x576_2echo_a30

TA: 27:33 PAT: 3 Voxel size: 0.4×0.4×0.5 mm Rel. SNR: 1.00 SIEMENS: gre

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	R35.5 A20.4 H30.1
Orientation	T > S33.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	64
FoV read	140 mm
FoV phase	100.0 %
Slice thickness	0.54 mm
TR	35 ms
TE 1	8.50 ms
TE 2	23.20 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

MTC	Off
Magn. preparation	None
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	6
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Multiple series	Each measurement

Resolution

Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	24
Accel. factor 3D	1
Reference scan mode	Integrated
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

V32	Off
A32	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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R35.7 A19.6 H33.3
! Orientation	T > S35.0
! Rotation	0.07 deg
! R >> L	92 mm
! A >> P	168 mm
! F >> H	54 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	2

Sequence

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Bandwidth 1	80 Hz/Px
Bandwidth 2	60 Hz/Px
Flow comp. 1	No
Flow comp. 2	No
Readout mode	Bipolar
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

\\USER\UserProtocols\Renzo\VASO_training_session\--------- DLPFC ---------

TA: 1:05 PAT: Off Voxel size: 1.0×1.0×5.0 mm Rel. SNR: 1.00 SIEMENS: tfl

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	9
Dist. factor	200 %
Position	R7.2 A19.0 F6.3
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	5
Dist. factor	80 %
Position	R8.2 A20.7 H10.1
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	7
Dist. factor	200 %
Position	R8.2 A46.4 F8.3
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	3000 ms
TE	3.17 ms
Averages	1
Concatenations	21
Filter	None
Coil elements	A32

Contrast

TD	0 ms
Magn. preparation	Slice-sel. IR
TI	1100 ms
Flip angle	6 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	192
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	Sequential
Series	Ascending
Table position	H
Table position	0 mm
Inline Composing	Off

System

V32	Off
A32	On
Positioning mode	REF
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	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	220.000 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
Dark blood	Off
Resp. control	Off

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	On
Dimension	2D
Asymmetric echo	Off
Bandwidth	240 Hz/Px
Flow comp.	No
Echo spacing	6.4 ms
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On

\\USER\UserProtocols\Renzo\VASO_training_session\anat_Localizer DLPFC

TA: 1:05 PAT: Off Voxel size: 1.0×1.0×5.0 mm Rel. SNR: 1.00 SIEMENS: tfl

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	9
Dist. factor	200 %
Position	R7.2 A19.0 F6.3
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	5
Dist. factor	80 %
Position	R8.2 A20.7 H10.1
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	7
Dist. factor	200 %
Position	R8.2 A46.4 F8.3
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	3000 ms
TE	3.17 ms
Averages	1
Concatenations	21
Filter	None
Coil elements	A32

Contrast

TD	0 ms
Magn. preparation	Slice-sel. IR
TI	1100 ms
Flip angle	6 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	192
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	Sequential
Series	Ascending
Table position	H
Table position	0 mm
Inline Composing	Off

System

V32	Off
A32	On
Positioning mode	REF
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	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	220.000 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
Dark blood	Off
Resp. control	Off

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	On
Dimension	2D
Asymmetric echo	Off
Bandwidth	240 Hz/Px
Flow comp.	No
Echo spacing	6.4 ms
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On

\\USER\UserProtocols\Renzo\VASO_training_session\epi_sms3_ip2_2mm_10_20GLM

TA: 6:18 PAT: 2 Voxel size: 2.0×2.0×2.0 mm Rel. SNR: 1.00 USER: ep2d_bold_sms_mgh_v22

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	57
Dist. factor	0 %
Position	L0.0 A19.0 H6.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	195 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	1000 ms
TE	23 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

MTC	Off
Flip angle	65 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	360
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	98
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

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

System

V32	Off
A32	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R6.3 A29.3 H24.5
! Orientation	T > C3.0
! Rotation	0.00 deg
! R >> L	120 mm
! A >> P	162 mm
! F >> H	50 mm

Physio

1st Signal/Mode	None

BOLD

GLM Statistics	On
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	1
Model transition states	Off
Temp. highpass filter	On
Threshold	4.00
Paradigm size	20
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Active
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1890 Hz/Px
Free echo spacing	Off
Echo spacing	0.63 ms
EPI factor	98
RF pulse type	Normal
Gradient mode	Fast
Dummy Scans	3
Dummy Scans	4
SMS Factor	3
RF Clip	0
VERSE Factor	1.00
SMS Shift	2
Kernel Size	5x5
Compression Factor	1.00

\\USER\UserProtocols\Renzo\VASO_training_session\FA4_VASO_122_130mmFOV_GRAPPA_opti

TA: 13:52 PAT: 3 Voxel size: 0.8×0.8×1.0 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

Slab group 1	
Slabs	1
Dist. factor	50 %
Position	L37.2 A26.3 F2.8
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	18 %
Slice oversampling	9.1 %
Slices per slab	22
FoV read	130.0 mm
FoV phase	98.8 %
Slice thickness	1.00 mm
TR	2514.00 ms
TE	27 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

Perfusion mode	SS-SI VASO
TI2	700 ms
TI1	50 ms
TI1s	50 ms
Flip angle	4 deg
Fat suppr.	Fat sat.
Fat sat. mode	Weak
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	331
Delay in TR	0 ms
Multiple series	Off
Perfusion mode	PICORE Q2T
Inversion time 1	50 ms
Saturation stop time	50 ms
Inversion time 2	700.0 ms
Flow limit	100 cm/s

Resolution

Base resolution	172
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Accel. factor 3D	1
Ref. lines 3D	24
Reference scan mode	Separate
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Special sat.	Parallel R
Gap	25.0 mm
Thickness	100 mm
Table position	H
Table position	0 mm
Inline Composing	Off

System

V32	Off
A32	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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L28.4 A29.6 F5.0
! Orientation	T > C-0.1
! Rotation	0.00 deg
! R >> L	68 mm
! A >> P	127 mm
! F >> H	107 mm

Physio

1st Signal/Mode	None

BOLD

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Bandwidth	908 Hz/Px
Free echo spacing	Off
Echo spacing	1.23 ms
EPI factor	170

RF pulse type	Normal
Gradient mode	Normal
Excitation	Slab-sel.
RF spoiling	On
Ampl	180
BWDTH	150 3.1kHz
ph.skip 4 Robert (the one)	30
use Ernst angle	Off
Maxwell Correction	Off
log physio files	Off
FFT scale	3.00
dummy prepscan time	3 s
z shim	0.00 mT/m*ms
RF duration	2200 us
RF BWTP	25.0
Renzo: Delta TI	73 ms
EFFECTIVE TR	60336 ms
PatPartitions	24
EPI phase correction	local
PAT refscan mode	Flash
FlashRef BaseRes	172
FlashRef BW	100 Hz/px
FlashRef TE	10000 us
FlashRef FA	5 deg
use CAIPI	Off

\\USER\UserProtocols\Renzo\VASO_training_session\axial

TA: 11:08 PAT: 3 Voxel size: 0.9×0.9×1.1 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

Slab group 1	
Slabs	1
Dist. factor	50 %
Position	R1.9 A26.7 H33.2
Orientation	Transversal
Phase enc. dir.	P >> A
Rotation	180.00 deg
Phase oversampling	0 %
Slice oversampling	9.1 %
Slices per slab	22
FoV read	150.0 mm
FoV phase	100.0 %
Slice thickness	1.10 mm
TR	2006.00 ms
TE	20 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

Perfusion mode	SS-SI VASO
TI2	700 ms
TI1	50 ms
TI1s	50 ms
Flip angle	4 deg
Fat suppr.	Fat sat.
Fat sat. mode	Weak
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	333
Delay in TR	0 ms
Multiple series	Off
Perfusion mode	PICORE Q2T
Inversion time 1	50 ms
Saturation stop time	50 ms
Inversion time 2	700.0 ms
Flow limit	100 cm/s

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Accel. factor 3D	1
Ref. lines 3D	24
Reference scan mode	Separate
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Special sat.	Parallel F
Gap	25.0 mm
Thickness	100 mm
Table position	H
Table position	0 mm
Inline Composing	Off

System

V32	Off
A32	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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L2.4 A26.9 H26.4
! Orientation	T > C0.2
! Rotation	0.00 deg
! R >> L	120 mm
! A >> P	152 mm
! F >> H	50 mm

Physio

1st Signal/Mode	None

BOLD

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Bandwidth	1144 Hz/Px
Free echo spacing	Off
Echo spacing	0.98 ms
EPI factor	162

RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Ampl	100
BWDTH	150 3.1kHz
ph.skip 4 Robert (the one)	30
use Ernst angle	Off
Maxwell Correction	Off
log physio files	Off
FFT scale	1.00
dummy prepscan time	3 s
z shim	0.00 mT/m*ms
RF duration	2000 us
RF BWTP	25.0
Renzo: Delta TI	51 ms
EFFECTIVE TR	48144 ms
PatPartitions	24
EPI phase correction	local
PAT refscan mode	Flash
FlashRef BaseRes	162
FlashRef BW	141 Hz/px
FlashRef TE	4800 us
FlashRef FA	5 deg
use CAIPI	Off

\\USER\UserProtocols\Renzo\VASO_training_session\coil_comb_across_echo_spacings_6

TA: 8:34 PAT: 4 Voxel size: 1.1×1.1×2.0 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	12
Dist. factor	100 %
Position	L0.0 A20.1 H30.9
Orientation	T > C-2.0
Phase enc. dir.	P >> A
Rotation	180.00 deg
Phase oversampling	0 %
FoV read	170 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	2093.3 ms
TE	30 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

Perf / VASO mode	SS-SI VASO
TI2	900 ms
TI1	50 ms
TI1s	50 ms
Flip angle	80 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	243
Delay in TR	0 ms
Multiple series	Off
Perfusion mode	PICORE Q2T
Inversion time 1	50 ms
Saturation stop time	50 ms
Inversion time 2	900 ms
Flow limit	100.0 cm/s

Resolution

Base resolution	150
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	4
Ref. lines PE	96
Reference scan mode	Separate
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Special sat.	Parallel F
Gap	25.0 mm
Thickness	100 mm
Table position	H
Table position	0 mm
Inline Composing	Off

System

V32	Off
A32	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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R1.4 A13.3 H27.0
! Orientation	Sagittal
! Rotation	10.86 deg
! F >> H	72 mm
! A >> P	166 mm
! R >> L	157 mm

Physio

1st Signal/Mode	None

BOLD

Sequence

Introduction	On
Contrasts	1
Bandwidth	1516 Hz/Px
Free echo spacing	Off
Echo spacing	0.78 ms
EPI factor	150
RF pulse type	Normal
Gradient mode	Normal
Ampl	90
BWDTH	300 3.1kHz
thickness	100
Phase skip	30
Opt. TI2	1106
Volumes per TI	1
SMS factor	1
log physio files	Off
altern z-shim	0 uT/m

fixed z-shim	0 uT/m
EPI phase correction	local
PAT refscan mode	FLEET
FLEET dummies	15
FLEET flip angle	30
RF pulse duration	5120 us
FFT scale	0.7

\\USER\UserProtocols\Renzo\VASO_training_session\coil_combine_test_no_fatsat_PF78

TA: 0:12 PAT: 2 Voxel size: 1.3×1.3×1.5 mm Rel. SNR: 1.00 USER: VASO_109

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	50 %
Position	L1.9 A11.4 H25.6
Orientation	T > C-13.9
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	12
FoV read	160.0 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	1708.10 ms
TE	39 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast

Perfusion mode	Picore Q2TIPS
TI2	800 ms
TI1	50 ms
TI1s	50 ms
Flip angle	14 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	7
Delay in TR	0 ms
Multiple series	Off
Perfusion mode	PICORE Q2T
Inversion time 1	50 ms
Saturation stop time	50 ms
Inversion time 2	800.0 ms
Flow limit	100.0 cm/s

Resolution

Base resolution	120
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Ref. lines 3D	12
Reference scan mode	Separate
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Special sat.	Parallel F
Gap	25.0 mm
Thickness	100 mm
Table position	H
Table position	0 mm
Inline Composing	Off

System

V32	Off
A32	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	On
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L29.5 A18.9 H20.4
! Orientation	Sagittal
! Rotation	0.32 deg
! F >> H	60 mm
! A >> P	67 mm
! R >> L	71 mm

Physio

1st Signal/Mode	None

BOLD

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Bandwidth	2314 Hz/Px
Free echo spacing	Off
Echo spacing	0.86 ms
EPI factor	120
RF pulse type	Normal

Gradient mode	Normal
Excitation	Slab-sel.
RF spoiling	On
Ampl	90
BWDTH	150 3.1kHz
thickness	30
use Ernst angle	Off
Maxwell Correction	Off
log physio files	Off
FFT scale	2.00
dummy prepscan time	3 s
z shim	0.00 mT/m*ms
RF duration	5120 us
RF BWTP	25.0
EFFECTIVE TR	20497 ms
PatPartitions	12
EPI phase correction	local
PAT refscan mode	segm LIN->PAR
use CAIPI	Off