\\USER\UserProtocols\Renzo\Basic_templates\Quin_pilot_250V

Voxel size: 1.0×1.0×5.0 mm Rel. SNR: 1.00

SIEMENS: tfl

TA: 1:12

PAT: Off

		Interpolation	Off
Properties			
Prio Recon	Off	PAT mode	None
Before measurement		Image Filter	Off
After measurement	0:-	Distortion Corr.	Off
Load to viewer	On O"	Prescan Normalize	Off
Inline movie	Off	Normalize	Off
Auto store images	On O"	B1 filter	Off
Load to stamp segments	Off	Raw filter	Off
Load images to graphic	Off	Elliptical filter	Off
segments	~ "	· ·	.
Auto open inline display	Off	Geometry	
Start measurement without	Off	Multi-slice mode	Sequential
further preparation	0"	Series	Ascending
Wait for user to start	Off		
Start measurements	single	Table position	Н
Routine		Table position	0 mm
Slice group 1		Inline Composing	Off
Slices	7	System	
Dist. factor	180 %	V32	Off
Position	R1.0 A29.5 F23.2	A32	On
Orientation	Sagittal		OII
Phase enc. dir.	A >> P	Positioning mode	REF
Rotation	0.00 deg	MSMA	S - C - T
Slice group 2	3 11 11 9	Sagittal	R >> L
Slices	8	Coronal	A >> P
Dist. factor	75 %	Transversal	F >> H
Position	R3.5 A29.4 H30.5	Save uncombined	Off
Orientation	Transversal	Coil Combine Mode	Adaptive Combine
Phase enc. dir.	A >> P	AutoAlign	'
Rotation	0.00 deg	Auto Coil Select	Default
Slice group 3	5.55 dog		
Slices	5	Shim mode	Tune up
Dist. factor	100 %	Adjust with body coil	Off
Position	L0.0 A6.8 F24.4	Confirm freq. adjustment	Off
Orientation	Coronal	Assume Silicone	Off
Phase enc. dir.	R >> L	! Ref. amplitude 1H	220.000 V
Rotation	0.00 deg	Adjustment Tolerance	Auto
Phase oversampling	0 %	Adjust volume	
FoV read	200 mm	Position	Isocenter
		Orientation	Transversal
FoV phase	100 0 %		
FoV phase Slice thickness	100.0 % 5.0 mm	Rotation	0.00 deg
Slice thickness	5.0 mm	Rotation R >> L	0.00 deg 350 mm
Slice thickness TR	5.0 mm 3500 ms	Rotation R >> L A >> P	0.00 deg 350 mm 263 mm
Slice thickness TR TE	5.0 mm	Rotation R >> L	0.00 deg 350 mm
Slice thickness TR TE Averages	5.0 mm 3500 ms 3.17 ms 1	Rotation R >> L A >> P F >> H	0.00 deg 350 mm 263 mm
Slice thickness TR TE Averages Concatenations	5.0 mm 3500 ms 3.17 ms 1 20	Rotation R >> L A >> P F >> H Physio	0.00 deg 350 mm 263 mm 350 mm
Slice thickness TR TE Averages Concatenations Filter	5.0 mm 3500 ms 3.17 ms 1 20 None	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode	0.00 deg 350 mm 263 mm 350 mm
Slice thickness TR TE Averages Concatenations Filter Coil elements	5.0 mm 3500 ms 3.17 ms 1 20	Rotation R >> L A >> P F >> H Physio	0.00 deg 350 mm 263 mm 350 mm
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast	5.0 mm 3500 ms 3.17 ms 1 20 None A32	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood	0.00 deg 350 mm 263 mm 350 mm None
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD	5.0 mm 3500 ms 3.17 ms 1 20 None A32	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control	0.00 deg 350 mm 263 mm 350 mm
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation	5.0 mm 3500 ms 3.17 ms 1 20 None A32	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood	0.00 deg 350 mm 263 mm 350 mm None
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation TI	5.0 mm 3500 ms 3.17 ms 1 20 None A32 0 ms Slice-sel. IR 1100 ms	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control	0.00 deg 350 mm 263 mm 350 mm None
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation TI Flip angle	5.0 mm 3500 ms 3.17 ms 1 20 None A32 0 ms Slice-sel. IR 1100 ms 5 deg	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control Inline	0.00 deg 350 mm 263 mm 350 mm None Off
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation TI Flip angle Fat suppr.	5.0 mm 3500 ms 3.17 ms 1 20 None A32 0 ms Slice-sel. IR 1100 ms 5 deg None	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control Inline Subtract	0.00 deg 350 mm 263 mm 350 mm None Off Off
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation TI Flip angle	5.0 mm 3500 ms 3.17 ms 1 20 None A32 0 ms Slice-sel. IR 1100 ms 5 deg	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control Inline Subtract Std-Dev-Sag	0.00 deg 350 mm 263 mm 350 mm None Off Off Off Off Off Off Off
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation TI Flip angle Fat suppr. Water suppr.	5.0 mm 3500 ms 3.17 ms 1 20 None A32 0 ms Slice-sel. IR 1100 ms 5 deg None None	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control Inline Subtract Std-Dev-Sag Std-Dev-Cor	0.00 deg 350 mm 263 mm 350 mm None Off Off Off Off Off
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation TI Flip angle Fat suppr. Water suppr. Averaging mode	5.0 mm 3500 ms 3.17 ms 1 20 None A32 0 ms Slice-sel. IR 1100 ms 5 deg None None Long term	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control Inline Subtract Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra	0.00 deg 350 mm 263 mm 350 mm None Off Off Off Off Off Off Off
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation TI Flip angle Fat suppr. Water suppr. Averaging mode Reconstruction	5.0 mm 3500 ms 3.17 ms 1 20 None A32 0 ms Slice-sel. IR 1100 ms 5 deg None None	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control Inline Subtract Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time	0.00 deg 350 mm 263 mm 350 mm None Off Off Off Off Off Off Off O
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation TI Flip angle Fat suppr. Water suppr. Averaging mode Reconstruction Measurements	5.0 mm 3500 ms 3.17 ms 1 20 None A32 0 ms Slice-sel. IR 1100 ms 5 deg None None Long term Magnitude 1	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control Inline Subtract Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time MIP-Sag	0.00 deg 350 mm 263 mm 350 mm None Off Off Off Off Off Off Off O
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation TI Flip angle Fat suppr. Water suppr. Averaging mode Reconstruction	5.0 mm 3500 ms 3.17 ms 1 20 None A32 0 ms Slice-sel. IR 1100 ms 5 deg None None Long term	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control Inline Subtract Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor	0.00 deg 350 mm 263 mm 350 mm None Off Off Off Off Off Off Off O
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation TI Flip angle Fat suppr. Water suppr. Averaging mode Reconstruction Measurements	5.0 mm 3500 ms 3.17 ms 1 20 None A32 0 ms Slice-sel. IR 1100 ms 5 deg None None Long term Magnitude 1	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control Inline Subtract Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra	0.00 deg 350 mm 263 mm 350 mm None Off Off Off Off Off Off Off Off Off Of
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation TI Flip angle Fat suppr. Water suppr. Averaging mode Reconstruction Measurements Multiple series	5.0 mm 3500 ms 3.17 ms 1 20 None A32 0 ms Slice-sel. IR 1100 ms 5 deg None None Long term Magnitude 1	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control Inline Subtract Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra MIP-Time	0.00 deg 350 mm 263 mm 350 mm None Off Off Off Off Off Off Off Off Off Of
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation TI Flip angle Fat suppr. Water suppr. Averaging mode Reconstruction Measurements Multiple series Resolution	5.0 mm 3500 ms 3.17 ms 1 20 None A32 0 ms Slice-sel. IR 1100 ms 5 deg None None Long term Magnitude 1 Each measurement	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control Inline Subtract Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra MIP-Time	0.00 deg 350 mm 263 mm 350 mm None Off Off Off Off Off Off Off Off Off Of
Slice thickness TR TE Averages Concatenations Filter Coil elements Contrast TD Magn. preparation TI Flip angle Fat suppr. Water suppr. Averaging mode Reconstruction Measurements Multiple series Resolution Base resolution	5.0 mm 3500 ms 3.17 ms 1 20 None A32 0 ms Slice-sel. IR 1100 ms 5 deg None None Long term Magnitude 1 Each measurement	Rotation R >> L A >> P F >> H Physio 1st Signal/Mode Dark blood Resp. control Inline Subtract Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra MIP-Tra MIP-Time Save original images	0.00 deg 350 mm 263 mm 350 mm None Off Off Off Off Off Off Off Off Off Of

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

\\USER\UserProtocols\Renzo\Basic_templates\MP2RAGE_0.70iso_800_2700_from_Kanny

USER: tfl_wip900b17a

Voxel size: 0.7×0.7×0.7 mm Rel. SNR: 1.00

TA: 10:08

PAT: 3

		_	
Properties		Image Filter	Off
Prio Recon	Off	— Distortion Corr.	Off
Before measurement	0.11	Prescan Normalize	Off
After measurement		Raw filter	Off
Load to viewer	On	Elliptical filter	Off
Inline movie	Off	Geometry	
Auto store images	On	Multi-slice mode	Single shot
Load to stamp segments	Off	Series	Interleaved
Load images to graphic	Off		
segments		Table position	 Н
Auto open inline display	Off	Table position	0 mm
Start measurement without	On	Inline Composing	Off
further preparation			5
Wait for user to start	Off	System	
Start measurements	single	V32	Off
) autin a	3	A32	On
Routine		Positioning mode	REF
Slab group 1	4	MSMA	S - C - T
Slabs Dist factor	1 50 %	Sagittal	R >> L
Dist. factor Position		Coronal	A >> P
	L0.3 A25.2 F13.8	Transversal	F >> H
Orientation	Sagittal A >> P	Save uncombined	Off
Phase enc. dir.		Coil Combine Mode	Adaptive Combine
Rotation	0.00 deg	AutoAlign	
Phase oversampling	0 %	Auto Coil Select	Default
Slice oversampling	7.1 %		
Slices per slab	224	Shim mode	Standard
FoV read	224 mm	Adjust with body coil	Off
FoV phase	100.0 %	Confirm freq. adjustment	Off
Slice thickness	0.70 mm	Assume Silicone	Off
TR	6000 ms	! Ref. amplitude 1H	277.000 V
TE 1	2.96 ms	Adjustment Tolerance	Auto
TE 2	7.28 ms	Adjust volume	
Averages	1 1	! Position	R1.3 A18.8 H20.2
Concatenations Filter	None	! Orientation	T > C-2.0
		! Rotation	0.00 deg
Coil elements	A32	! R >> L	160 mm
Contrast		! A >> P	196 mm
Magn. preparation	Non-sel. IR		109 mm
TI 1	750 ms	Physio	
TI 2	2800 ms	1st Signal/Mode	None
Flip angle 1	4 deg		
Flip angle 2	5 deg	Dark blood	Off
Fat suppr.	None	Resp. control	Off
Water suppr.	None	I Nesp. Control	Oli
2nd Inversion Contrast	On	Composing	
Averaging mode	Long term	Sequence	
Reconstruction	Magn./Phase	Introduction	On
Measurements	1	Dimension	3D
Multiple series	Each measurement	Elliptical scanning	Off
Multiple selles	Lacii illeasurement	Asymmetric echo	Off
Resolution		Contrasts	2
Base resolution	320	Bandwidth 1	250 Hz/Px
Phase resolution	100 %	Bandwidth 2	240 Hz/Px
Slice resolution	100 %		No
Phase partial Fourier	6/8	Flow comp. Readout mode	
Slice partial Fourier	6/8		Bipolar
	OD A DD A	Echo spacing	11.3 ms
PAT mode	GRAPPA	RF pulse type	Fast
Accel. factor PE	3	Gradient mode	Fast*
Ref. lines PE	32	Excitation	Non-sel.
Accel. factor 3D	1	RF spoiling	On
Reference scan mode	Integrated		
		FFT Scale Factor	150 %

Morphometry Analysis	Off
FID MoCo Logging	Off
FID Coil Phase Corr.	On
LIN/PAR Swap	Off
Ext. INV Pulse	On
Flip Angle	700
Phase Filter	0 рх
Uniform Image	On
Head Mask on UNI	On
T1 Map	On
Complex Div. Image	On
Denoise Weighting	200
FLAWS	Off
Echo Averaging	On

\\USER\UserProtocols\Renzo\Basic_templates\3DVASO_16_slices_2_flash_PF68/78_whole_slice TA: 14:52 PAT: 2 Voxel size: 0.9×0.9×1.3 mm Rel. SNR: 1.00 USER: VASO_109

Properties		PAT mode Accel. factor PE	GRAPPA 2
Prio Recon	Off	Ref. lines PE	24
Before measurement		Accel. factor 3D	1
After measurement	0	Ref. lines 3D	12
Load to viewer	On O#	Reference scan mode	Separate
Inline movie	Off	Dunnan Nama dina	04
Auto store images	On Off	Prescan Normalize	Off Off
Load to stamp segments	Off	Raw filter	Off
Load images to graphic segments	Oli	Elliptical filter	Off Off
Auto open inline display	Off	Hamming	Oli
Start measurement without	On	Geometry	
further preparation	Oli	Multi-slice mode	Interleaved
Wait for user to start	Off	Series	Ascending
Start measurements	single	Chasial and	Develled C
Start measurements	Sirigie	Special sat.	Parallel F 25.0 mm
Routine Slab group 1		Gap Thickness	25.0 mm 100 mm
Slabs	1	Table position	ш
Dist. factor	50 %	Table position Table position	H 0 mm
Position	L1.5 A19.3 H39.9	Inline Composing	0 mm Off
Orientation	T > C-8.1	I mine Composing	Oii
Phase enc. dir.	R >> L	System	
Rotation	90.00 deg	V32	Off
Phase oversampling	0 %	A32	On
Slice oversampling	0.0 %	D :::	EN
Slices per slab	16	Positioning mode	FIX
FoV read	142.0 mm	MSMA	S-C-T
FoV phase	75.9 %	Sagittal	R >> L
Slice thickness	1.30 mm	Coronal	A >> P
TR	1846.80 ms	Transversal	F >> H
TE	31 ms	Save uncombined	Off
Averages	1	Coil Combine Mode	Sum of Squares
Concatenations	1	AutoAlign	
Filter	None	Auto Coil Select	Default
Coil elements	A32	Shim mode	Standard
1	7102	Adjust with body coil	Off
Contrast		Confirm freq. adjustment	Off
Perfusion mode	Picore Q2TIPS	Assume Silicone	Off
TI2	900 ms	! Ref. amplitude 1H	220.000 V
TI1	50 ms	Adjustment Tolerance	Auto
TI1s	50 ms	Adjust volume	
Flip angle	21 deg	! Position	L0.8 A15.6 H39.1
Fat suppr.	Fat sat.	! Orientation	S > T0.7 > C0.1
Fat sat. mode	Strong	! Rotation	7.34 deg
Averaging mode	Long term	! F >> H	23 mm
Reconstruction	Magn./Phase	! A >> P	156 mm
Measurements	483	! R >> L	108 mm
Delay in TR	0 ms	1	
Multiple series	Off	Physio	N.
	-	1st Signal/Mode	None
Perfusion mode	PICORE Q2T	BOLD	
Inversion time 1		5025	
	50 ms		Off
Saturation stop time		Motion correction	Off Off
Saturation stop time Inversion time 2	50 ms	Motion correction Spatial filter	Off Off
•	50 ms 50 ms	Motion correction Spatial filter Sequence	Off
Inversion time 2 Flow limit	50 ms 50 ms 900.0 ms	Motion correction Spatial filter Sequence Introduction	Off On
Inversion time 2 Flow limit Resolution	50 ms 50 ms 900.0 ms 100.0 cm/s	Motion correction Spatial filter Sequence Introduction Dimension	Off On 3D
Inversion time 2 Flow limit Resolution Base resolution	50 ms 50 ms 900.0 ms 100.0 cm/s	Motion correction Spatial filter Sequence Introduction Dimension Reordering	Off On 3D Linear
Inversion time 2 Flow limit Resolution Base resolution Phase resolution	50 ms 50 ms 900.0 ms 100.0 cm/s	Motion correction Spatial filter Sequence Introduction Dimension Reordering Contrasts	Off On 3D Linear 1
Inversion time 2 Flow limit Resolution Base resolution Phase resolution Slice resolution	50 ms 50 ms 900.0 ms 100.0 cm/s	Motion correction Spatial filter Sequence Introduction Dimension Reordering Contrasts Bandwidth	Off On 3D Linear 1 1158 Hz/Px
Inversion time 2 Flow limit Resolution Base resolution Phase resolution Slice resolution Phase partial Fourier	50 ms 50 ms 900.0 ms 100.0 cm/s 166 100 % 100 % 7/8	Motion correction Spatial filter Sequence Introduction Dimension Reordering Contrasts Bandwidth Free echo spacing	Off On 3D Linear 1 1158 Hz/Px Off
Inversion time 2 Flow limit Resolution Base resolution Phase resolution Slice resolution Phase partial Fourier Slice partial Fourier	50 ms 50 ms 900.0 ms 100.0 cm/s 166 100 % 100 % 7/8 6/8	Motion correction Spatial filter Sequence Introduction Dimension Reordering Contrasts Bandwidth	Off On 3D Linear 1 1158 Hz/Px
Inversion time 2 Flow limit Resolution Base resolution Phase resolution Slice resolution Phase partial Fourier	50 ms 50 ms 900.0 ms 100.0 cm/s 166 100 % 100 % 7/8	Motion correction Spatial filter Sequence Introduction Dimension Reordering Contrasts Bandwidth Free echo spacing	Off On 3D Linear 1 1158 Hz/Px Off

RF pulse type Gradient mode Excitation RF spoiling	Normal Normal Slab-sel. On
Ampl BWDTH thickness use Ernst angle Maxwell Correction log physio files FFT scale dummy prepscan time z shim RF duration RF BWTP EFFECTIVE TR PatPartitions EPI phase correction PAT refscan mode FlashRef BaseRes FlashRef BW FlashRef TE FlashRef FA use CAIPI	95 150 3.1kHz 30 Off Off Off Off 0.50 3 s 0.00 mT/m*ms 5120 us 25.0 22161 ms 12 local Flash 166 1000 Hz/px 4800 us 5 deg Off

\\USER\UserProtocols\Renzo\Basic_templates\3DVASO_ONE_Hemisphere_GRAPPA2_PF68_10Slices_SOS TA: 0:19 PAT: 2 Voxel size: 0.7×0.7×1.8 mm Rel. SNR: 1.00 USER: VASO_109

		PAT mode	GRAPPA
Properties	0"	Accel. factor PE	2
Prio Recon	Off	Ref. lines PE	24
Before measurement		Accel. factor 3D	1
After measurement	0	Ref. lines 3D	8
Load to viewer	On O#	Reference scan mode	Separate
Inline movie	Off	December Normaline	⁴
Auto store images	On Off	Prescan Normalize	Off
Load to stamp segments	Off	Raw filter	Off Off
Load images to graphic segments	Oli	Elliptical filter	Off
Auto open inline display	Off	Hamming	Oil
Start measurement without	On	Geometry	
further preparation	Oli	Multi-slice mode	Interleaved
Wait for user to start	Off	Series	Ascending
Start measurements	single	0	Described F
1	Sirigle	Special sat.	Parallel F
Routine		Gap	25.0 mm 100 mm
Slab group 1		Thickness	100 mm
Slabs	1	Table position	Н
Dist. factor	50 %	Table position	0 mm
Position	L29.8 P1.9 H31.0	Inline Composing	Off
Orientation	T > S-22.8 > C-5.5		
Phase enc. dir.	R >> L	System	0"
Rotation	120.00 deg	V32	Off
Phase oversampling	0 %	A32	On
Slice oversampling	0.0 %	Positioning mode	FIX
Slices per slab	12	MSMA	S - C - T
FoV read	32.8 mm	Sagittal	R >> L
FoV phase	300.0 %	Coronal	A >> P
Slice thickness	1.80 mm	Transversal	F >> H
TR	1697.80 ms	Save uncombined	Off
TE	24 ms	Coil Combine Mode	Sum of Squares
Averages	1	AutoAlign	
Concatenations	1	Auto Coil Select	Default
Filter	None		
Coil elements	A32	Shim mode	Standard
Contrast		Adjust with body coil	Off
Perfusion mode	Picore Q2TIPS	Confirm freq. adjustment	Off
TI2	800 ms	Assume Silicone	Off
TI1	50 ms	! Ref. amplitude 1H	220.000 V
TI1s	50 ms	Adjustment Tolerance	Auto
Flip angle	27 deg	Adjust volume	=
Fat suppr.	Fat sat.	! Position	L24.9 P2.2 H31.4
Fat sat. mode		! Orientation	S > T0.7
	Strong	! Rotation	-0.26 deg
Averaging mode	Long term	!F>>H	60 mm
Reconstruction	Magnitude	! A >> P	72 mm
Measurements	11	! R >> L	85 mm
Delay in TR	0 ms	Physio	
Multiple series	Off	1st Signal/Mode	None
Perfusion mode	PICORE Q2T	1	
Inversion time 1	50 ms	BOLD	
Saturation stop time	50 ms	Motion correction	Off
Inversion time 2		Spatial filter	Off
Flow limit	800.0 ms 100.0 cm/s	Sequence	
I LIOM IIIIIII	100.0 611//5	Introduction	On
Resolution		Dimension	3D
Base resolution	44	Reordering	Linear
Phase resolution	100 %	Contrasts	1
Slice resolution	100 %	Bandwidth	1042 Hz/Px
Phase partial Fourier	6/8	Free echo spacing	Off
Slice partial Fourier	Off	Echo spacing	1.08 ms
Interpolation	Off		
I		EPI factor	132

RF pulse type Gradient mode Excitation RF spoiling	Normal Normal Slab-sel. 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\Basic_templates\quick_Tx_calib_250V

TA: 0:11	Voxel size: 3.9×3.9×5.0 mm	Rel. SNR: 1.00 USER:	b1map_658
Properties		Positioning mode	FIX
Prio Recon	Off	MSMA Sogittal	S-C-T
Before measurement		Sagittal	R >> L
After measurement		Coronal	A >> P
Load to viewer	On	Transversal	F >> H
Inline movie	Off	Save uncombined	Off
Auto store images	On	Coil Combine Mode	Adaptive Combine
Load to stamp segments	Off	AutoAlign	 D ()
Load images to graphic	Off	Auto Coil Select	Default
segments	.	Shim mode	Tune up
Auto open inline display	Off	Adjust with body coil	Off
Start measurement without	On	Confirm freq. adjustment	Off
further preparation	-	Assume Silicone	Off
Wait for user to start	Off	! Ref. amplitude 1H	200.000 V
Start measurements	single	Adjustment Tolerance	Auto
Start measurements	Sirigie	Adjust volume	Auto
Routine		Position	Isocenter
Slice group 1		Orientation	Transversal
Slices	1	Rotation	0.00 deg
Dist. factor	150 %	Rotation R >> L	350 mm
Position	R0.6 A31.6 F21.7	A >> L A >> P	263 mm
Orientation	T > C0.2	F >> H	350 mm
Phase enc. dir.	A >> P	Г -> П	330 IIIII
Rotation	0.00 deg	Composing	
FoV read	250 mm		
FoV phase	100.0 %	Sequence	2
Slice thickness	5 mm	Contrasts	200.440007.11=/Dv
TR	100 ms	Bandwidth	260.416667 Hz/Px
TE 1	14 ms	T1 Compensation	Mean T1
TE 2	14 ms	Mean T1	500.0 ms
Averages	1	Angles	1
Filter	None	Amplitude Weighting	Linear
Coil elements	A32	Scale Bar	Enabled
ı		Raw Data	Disabled
Contrast	00 dos	1	
Flip angle 1	90 deg		
Flip angle 2	120 deg		
Flip angle 3	60 deg		
Flip angle 4	135 deg		
Flip angle 5	45 deg		
Measurements	1		
I			
Resolution	0.4		
Base resolution	64		
Phase resolution	100 %		
Raw filter	Off		
<u>I</u>	÷		
Geometry			
Series	Interleaved		
Navigator 1			
Position	L3.1 A32.2 F19.2		
Orientation	Transversal		
Rotation	0.00 deg		
Base size phase	50 mm		
Base size read	50 mm		
Thickness	50 mm		
11110111622	JU IIIIII		
Table position	Н		
Table position	0 mm		
Inline Composing	Off		
System	0"		
V32	Off		
A32	On		
1			

\\USER\UserProtocols\Renzo\Basic_templates\MAFI_6mm

TA: 2:17	Voxel size: 6.0×6.0×6.0	mm Rel. SNR: 1.00 USER:	Renzo\MAFI
Properties		Geometry	
Prio Recon	Off	Multi-slice mode	Sequential
Before measurement	.	Series	Ascending
After measurement			-
Load to viewer	On	Special sat.	None
Inline movie	Off	Table position	Н
Auto store images	On	Table position	0 mm
Load to stamp segments	Off	Inline Composing	Off
Load images to graphic	Off		5
segments		System	
Auto open inline display	Off	V32	Off
Start measurement without	On	A32	On
further preparation		Positioning mode	REF
Wait for user to start	Off	MSMA	S-C-T
Start measurements	single	Sagittal	R >> L
D #	3 -	Coronal	A >> P
Routine		Transversal	A >> P F >> H
Slab group 1		Save uncombined	F >> FI
Slabs	1	Coil Combine Mode	Adaptive Combine
Dist. factor	0 %		Adaptive Combine
Position	R1.4 A37.3 F30.9	AutoAlign Auto Coil Select	 Default
Orientation	Sagittal	Auto Coil Select	Delauli
Phase enc. dir.	A >> P	Shim mode	Standard
Rotation	0.00 deg	Adjust with body coil	Off
Phase oversampling	0 %	Confirm freq. adjustment	Off
Slice oversampling	0.0 %	Assume Silicone	Off
Slices per slab	28	! Ref. amplitude 1H	270.000 V
FoV read	192 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	6.00 mm	! Position	R1.3 A35.6 H4.8
TR	150 ms	! Orientation	T > C-2.0
TE 1	1.080 ms	! Rotation	0.00 deg
TE 2	1.080 ms	! R >> L	160 mm
TE 3	2.09 ms	! A >> P	196 mm
TE 4	3.100 ms	! F >> H	49 mm
Averages	1	ı	
Concatenations	1	Physio	
Filter	None	1st Signal/Mode	None
Coil elements	A32	Inline	
Contrast		Subtract	Off
MTC	Off	Std-Dev-Sag	Off
Flip angle	90 deg	Std-Dev-Cor	Off
Fat suppr.	None	Std-Dev-Tra	Off
Water suppr.	None	Std-Dev-Time	Off
		MIP-Sag	Off
Averaging mode	Short term	MIP-Cor	Off
Reconstruction	Magn./Phase	MIP-Tra	Off
Measurements	1	MIP-Time	Off
Multiple series	Off	Save original images	On
Resolution			-
Base resolution	32	Sequence	
Phase resolution	100 %	Introduction	Off
Slice resolution	100 %	Dimension	3D
Phase partial Fourier	Off	Contrasts	4
Interpolation	Off	Bandwidth	1560 Hz/Px
merpolation	OII		
Image Filter	Off	Gradient mode	Fast
Distortion Corr.	Off	RF spoiling	On
Prescan Normalize	Off	Online ICE	
Normalize	Off	Online ICE	Off
B1 filter	Off	RF pulse type	square
Raw filter	Off	Pulse duration	500 us
Elliptical filter	Off	Spoil me!	On

Elliptical filter

Off

TR2/TR1

N dummy TRs 20
Sample T1 1800 ms
Diffusion damping d= bD 0.6000
Diffusion coefficient D 2.2000 µm2/ms
RF spoil phase increment 129.3 deg
Number of pulse shapes 1

TX/RX Nucleus 1H

TX/RX delta frequency 0 Hz
TX Nucleus None
TX delta frequency 0 Hz

$\verb|\USER\USer| Protocols \Renzo Basic_templates \epi_sms3_ip2_2mm_10_20GLM| \\$

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

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On		
Inline movie	Off	System	
Auto store images	On	V32	Off
Load to stamp segments	Off	A32	On
Load images to graphic	Off	Desitioning mode	
segments	Oll	Positioning mode	FIX S - C - T
Auto open inline display	Off	MSMA	
Start measurement without	On	Sagittal	R >> L
	Oli	Coronal	A >> P
further preparation	0#	Transversal	F >> H
Wait for user to start	Off	Coil Combine Mode	Sum of Squares
Start measurements	single	AutoAlign	 D ()
Routine		Auto Coil Select	Default
Slice group 1		Shim mode	Standard
Slices	57	Adjust with body coil	Off
Dist. factor	0 %	Confirm freq. adjustment	Off
Position	L0.0 A13.7 F9.3	Assume Silicone	Off
Orientation	Transversal	? Ref. amplitude 1H	0.000 V
Phase enc. dir.	A >> P	Adjustment Tolerance	Auto
Rotation	0.00 deg	Adjust volume	
Phase oversampling	0 %	! Position	L0.0 A27.9 H1.2
FoV read	195 mm	! Orientation	Transversal
FoV phase	100.0 %	! Rotation	0.00 deg
Slice thickness	2.0 mm	! R >> L	120 mm
TR	1000 ms	! A >> P	150 mm
TE	23 ms	! F >> H	93 mm
Averages	1	<u>I</u>	
Concatenations	1	Physio	
Filter	None	1st Signal/Mode	None
Coil elements	A32	BOLD	
•		GLM Statistics	On
Contrast	0"	Dynamic t-maps	Off
MTC	Off	Starting ignore meas	0
Flip angle	65 deg	Ignore after transition	1
Fat suppr.	Fat sat.	Model transition states	Off
Averaging mode	Long term	Temp. highpass filter	On
Reconstruction	Magnitude		_
Measurements	120	Threshold	4.00
Delay in TR	0 ms	Paradigm size	30
		Meas[1]	Baseline
Multiple series	Off	Meas[2]	Baseline
Resolution		Meas[3]	Baseline
Base resolution	98	Meas[4]	Baseline
Phase resolution	100 %	Meas[5]	Baseline
Phase partial Fourier	Off	Meas[6]	Baseline
Interpolation	Off	Meas[7]	Baseline
			Danalina
PAT mode		Meas[8]	Baseline
	GRAPPA	Meas[8] Meas[9]	Baseline
Accel. factor PE	GRAPPA 2		
	GRAPPA	Meas[9]	Baseline
Accel. factor PE	GRAPPA 2	Meas[9] Meas[10]	Baseline Baseline
Accel. factor PE Ref. lines PE Reference scan mode	GRAPPA 2 24 Separate	Meas[9] Meas[10] Meas[11]	Baseline Baseline Baseline
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	GRAPPA 2 24 Separate Off	Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	Baseline Baseline Baseline Baseline
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	GRAPPA 2 24 Separate Off Off	Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	GRAPPA 2 24 Separate Off Off On	Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	GRAPPA 2 24 Separate Off Off On Off	Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	GRAPPA 2 24 Separate Off Off On	Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17]	Baseline
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	GRAPPA 2 24 Separate Off Off On Off	Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[18]	Baseline
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	GRAPPA 2 24 Separate Off Off On Off Off	Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[17] Meas[18] Meas[19]	Baseline
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	GRAPPA 2 24 Separate Off Off On Off	Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[18]	Baseline

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

Ooquonoo	
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\Basic_templates\1.2_SMS_VASO_79_24slic_noPF

Prio Recon		Prescan Normalize	Off
	0"	— Raw filter	Off
Defense men	Off	Elliptical filter	Off
Before measurement		Hamming	Off
After measurement	05	Coomotry	
	On O#	Geometry	lataria ava d
	Off	Multi-slice mode	Interleaved
	On Off	Series	Ascending
	Off Off	Special sat.	Parallel F
0 0 1	Oli	Gap	25.0 mm
segments	0#	Thickness	100 mm
	Off On		
	Oli	Table position	H
further preparation	Off	Table position	0 mm
		Inline Composing	Off
Start measurements	single	System	
Routine		V32	Off
Slice group 1		A32	On
Slices	24		
Dist. factor	0 %	Positioning mode	FIX
Position I	L0.0 A13.5 H28.6	MSMA	S - C - T
	T > C-10.0	Sagittal	R >> L
	P >> A	Coronal	A >> P
	180.00 deg	Transversal	F >> H
	0 %	Save uncombined	Off
	180 mm	Coil Combine Mode	Sum of Squares
	100.0 %	AutoAlign	
	2.0 mm	Auto Coil Select	Default
	1809.1 ms		
		Shim mode	Standard
	35 ms	Adjust with body coil	Off
Averages	1	Confirm freq. adjustment	Off
Concatenations	1	Assume Silicone	Off
	None	! Ref. amplitude 1H	220.000 V
Coil elements	A32	Adjustment Tolerance	Auto
Contrast		Adjust volume	
	SS-SI VASO	Position	R1.4 A13.3 H27.0
	1000 ms	! Orientation	Sagittal
	50 ms	! Rotation	10.86 deg
	50 ms	! F >> H	86 mm
	80 deg	! A >> P	166 mm
	Fat sat.	! R >> L	157 mm
	Weak	ı	
rat Sat. Mode	vveak 	Physio	
Averaging mode	Long term	1st Signal/Mode	None
5 5	Magnitude	BOLD	
	10		
	0 ms	Sequence	
•	Off	Introduction	On
		Contrasts	1
	PICORE Q2T	Bandwidth	1666 Hz/Px
	50 ms	Free echo spacing	Off
•	50 ms	Echo spacing	0.76 ms
	1000 ms		
Flow limit	100.0 cm/s	EPI factor	150
Resolution		RF pulse type	Normal
	150	Gradient mode	Normal
		Ampl	90
	100 %	BWDTH	300 3.1kHz
•	Off		
Interpolation	Off	thickness	100
PAT mode	GRAPPA	Phase skip	30
	2	Opt. TI2	1106
	2 48	Volumes per TI	1
		FatSat flip angle	110 deg
Reference scan mode	Separate	SMS factor	2

CAIPI shift	3
SMS online recon	On
SMS-RF phase optim.	On
log physio files	Off
altern z-shim	0 uT/m
fixed z-shim	0 uT/m
EPI phase correction	normal
PAT refscan mode	segmented
RF pulse duration	5120 us
FFT scale	0.5

\\USER\UserProtocols\Renzo\Basic_templates\Wong_Sequence_TR10_5slices Voxel size: 1.2x1.2x2.5 mm Rel. SNR: 1.00

TA: 0:10

USER: tfl_wip900b17a

Properties Prio Recon Before measurement After measurement Load to viewer Inline movie	Off	Image Filter Distortion Corr.	Off Off
Prio Recon Before measurement After measurement Load to viewer	Off	Distortion Corr.	Off
Before measurement After measurement Load to viewer	Oli		
After measurement Load to viewer		Prescan Normalize	Off
Load to viewer		Raw filter	Off
	On	Elliptical filter	Off
	Off	Geometry	
Auto store images	On	Multi-slice mode	Single shot
Load to stamp segments	Off	Series	Interleaved
Load images to graphic	Off		
segments		Table position	H
Auto open inline display	Off	Table position	0 mm
Start measurement without	On	Inline Composing	Off
further preparation			
Wait for user to start	Off	System	0"
Start measurements	single	V32	Off
Routine		A32	On
Slice group 1		Positioning mode	FIX
Slices	5	MSMA	S - C - T
Dist. factor	50 %	Sagittal	R >> L
Position	R3.9 A13.0 H9.7	Coronal	A >> P
Orientation	T > C-5.4	Transversal	F >> H
Phase enc. dir.	A >> P	Save uncombined	Off
Rotation	0.00 deg	Coil Combine Mode	Adaptive Combine
Phase oversampling	0 %	AutoAlign	
FoV read	192 mm	Auto Coil Select	Default
FoV phase	100.0 %	Shim mode	Standard
Slice thickness	2.5 mm	Adjust with body coil	Off
TR	2000 ms	Confirm freq. adjustment	Off
TE 1	2.02 ms	Assume Silicone	Off
TE 2	4.79 ms	? Ref. amplitude 1H	0.000 V
TE 3	8.24 ms	Adjustment Tolerance	Auto
TE 4	11.69 ms	Adjust volume	
TE 5	15.14 ms	! Position	L0.3 A14.2 H40.1
TE 6	18.59 ms	! Orientation	S > T0.5
TE 7	22.04 ms	! Rotation	-0.26 deg
TE 8	25.49 ms	! F >> H	43 mm
TE 9	28.94 ms	! A >> P	149 mm
TE 10	32.39 ms	! R >> L	134 mm
Averages	1	Physio	
Concatenations Filter	1 None	1st Signal/Mode	None
Coil elements	A32		
Coll elements	AJZ	Dark blood	Off
Contrast		Resp. control	Off
Magn. preparation	None	1 '	
Flip angle 1	10 deg	Composing	
Fat suppr.	None	Sequence	
Water suppr.	None	Introduction	Off
2nd Inversion Contrast	Off	Dimension	2D
Averaging mode	Long term	Asymmetric echo	Off
Reconstruction	Magnitude	Contrasts	10
Measurements	1	Bandwidth 1	600 Hz/Px
Multiple series	Each measurement	Bandwidth 2	300 Hz/Px
Resolution		Bandwidth 3	300 Hz/Px
	160	Bandwidth 4	300 Hz/Px
Base resolution Phase resolution	160 100 %	Bandwidth 5	300 Hz/Px
		Bandwidth 6	300 Hz/Px
Phase partial Fourier	6/8	Bandwidth 7	300 Hz/Px
PAT mode	GRAPPA	Bandwidth 8	300 Hz/Px
Accel. factor PE	3	Bandwidth 9	300 Hz/Px
I D (); DE	24	Bandwidth 10	300 Hz/Px
Ref. lines PE	Integrated	Flow comp.	No
Ref. lines PE Reference scan mode	integrated	Readout mode	Bipolar

Echo spacing	35 ms
RF pulse type Gradient mode Excitation RF spoiling	Fast Normal Slice-sel. On
Morphometry Analysis FID MoCo Logging FID Coil Phase Corr. LIN/PAR Swap Echo Averaging	Off Off Off Off Off

\\USER\UserProtocols\Renzo\Basic_templates\ep3d_TIM_0.8iso

USER: ep3d_bold_WIP1080

Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00

TA: 0:32

PAT: 4

1A. U.32 PAT. 4	VOXELSIZE. U.8XU.8XU.8 IIIIII	Rei. SNR. 1.00 USER.	epsa_bola_vviP 1060
		Elliptical filter	Off
Properties		Hamming	Off
Prio Recon	Off	ı	Oli
Before measurement		Geometry	
After measurement		Multi-slice mode	Interleaved
Load to viewer	On	Series	Interleaved
Inline movie	Off	Special sat.	None
Auto store images	On	Special Sat.	
Load to stamp segments	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments		Inline Composing	Off
Auto open inline display	Off	System	
Start measurement without	On	System V32	Off
further preparation		A32	On
Wait for user to start	Off	A32	On
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S - C - T
Slab group 1		Sagittal	R >> L
Slabs	1	Coronal	A >> P
Dist. factor	50 %	Transversal	F >> H
Position	R5.1 A8.5 H3.1	Coil Combine Mode	Sum of Squares
Orientation	T > C-7.0	AutoAlign	
Phase enc. dir.	P >> A	Auto Coil Select	Default
Rotation	180.00 deg		
	0 %	Shim mode	Standard
Phase oversampling		Adjust with body coil	Off
Slice oversampling	8.3 %	Confirm freq. adjustment	Off
Slices per slab	96	Assume Silicone	Off
FoV read	192 mm	? Ref. amplitude 1H	0.000 V
FoV phase	98.3 %	Adjustment Tolerance	Auto
Slice thickness	0.80 mm	Adjust volume	
TR	62 ms	! Position	R5.1 A18.6 H0.3
TE .	18 ms	! Orientation	Transversal
Averages	1	! Rotation	90.00 deg
Concatenations	1	! A >> P	149 mm
Filter	None	! R >> L	179 mm
Coil elements	A32	! F >> H	103 mm
Contrast		Physio	
MTC	Off	•	None
Flip angle	15 deg	1st Signal/Mode	None
Fat suppr.	Water excit. normal	BOLD	
		Motion correction	Off
Averaging mode	Long term	Spatial filter	Off
Reconstruction	Magnitude	•	
Measurements	3	Sequence	~
Delay in TR	0 ms	Introduction	Off
Multiple series	Off	Dimension	3D
Resolution		Reordering	Linear
Base resolution	232	Contrasts	1
Phase resolution	100 %	Bandwidth	828 Hz/Px
		Free echo spacing	Off
Slice resolution	100 % 5/8	Echo spacing	1.33 ms
Phase partial Fourier	5/8 Off	EPI factor	228
Slice partial Fourier	Off	RF pulse type	Normal
Interpolation	Off	Gradient mode	Fast
PAT mode	GRAPPA	Excitation	Slab-sel.
Accel. factor PE	4		
Ref. lines PE	48	RF spoiling	On
Accel. factor 3D	1	Use Ernst angle?	On
Ref. lines 3D	12	Log physio?	Off
Reference scan mode	Separate	FFT scale	1.00
		RF BWTP	25.0
Distortion Corr.	Off	bipolar water excite?	Off
Prescan Normalize	Off	EFFECTIVE TR	6448 ms
Raw filter	On	PatPartitions	104
-		1	· • ·

EPI phase correction local PAT refscan mode Flash FlashRef BaseRes 232 1000 Hz/px 4800 us FlashRef BW FlashRef TE 5 deg FlashRef FA use CAIPI On CAIPI shift kz 0 CAIPI shift ky 2 dummy prepscan time 3 s

\\USER\UserProtocols\Renzo\Basic_templates\ep3d_whole_brain

	Voxel size: 0.8×0.8×0.8 mm	Rel. SNR: 1.00 USER: 6	ep3d_bold_WIP1080
Properties		Elliptical filter	Off
Prio Recon	Off	Hamming	Off
Before measurement	Oll	Geometry	
After measurement		Multi-slice mode	Interleaved
Load to viewer	On	Series	Interleaved
Inline movie	Off		
Auto store images	On	Special sat.	None
Load to stamp segments	Off	Table position	Н
Load images to graphic	Off	Table position	0 mm
segments		Inline Composing	Off
Auto open inline display	Off	System	
Start measurement without	On	V32	Off
further preparation Wait for user to start	Off	A32	On
Start measurements	single		
1	Sirigie	Positioning mode	FIX
Routine		MSMA Sagittal	S - C - T R >> L
Slab group 1		Coronal	A >> P
Slabs Diet factor	1	Transversal	F >> H
Dist. factor Position	50 % R5.1 A8.5 H3.1	Coil Combine Mode	Sum of Squares
Orientation	Sagittal	AutoAlign	
Phase enc. dir.	A >> P	Auto Coil Select	Default
Rotation	0.00 deg	Chim made	Standard
Phase oversampling	0 %	Shim mode Adjust with body coil	Off
Slice oversampling	8.3 %	Confirm freq. adjustment	Off
Slices per slab	192	Assume Silicone	Off
FoV read	192 mm	? Ref. amplitude 1H	0.000 V
FoV phase	98.3 %	Adjustment Tolerance	Auto
Slice thickness	0.80 mm	Adjust volume	
TR	62 ms	! Position	R5.1 A18.6 H0.3
TE	18 ms	! Orientation	Transversal
Averages Concatenations	1	! Rotation	90.00 deg
Filter	None	! A >> P	149 mm
Coil elements	A32	! R >> L	179 mm 103 mm
ı		! F >> H	103 mm
Contrast MTC	Off	Physio	
Flip angle	15 deg	1st Signal/Mode	None
Fat suppr.	Water excit. normal	BOLD	
		Motion correction	Off
Averaging mode	Long term	Spatial filter	Off
Reconstruction	Magnitude 3	Sequence	
Measurements Delay in TR	0 ms	Introduction	Off
Multiple series	Off	Dimension	3D
1	.	Reordering	Linear
Resolution		Contrasts	1
Base resolution	232	Bandwidth	828 Hz/Px
Phase resolution	100 %	Free echo spacing	Off
Slice resolution Phase partial Fourier	100 % 5/8	Echo spacing	1.33 ms
Slice partial Fourier	Off	EPI factor	228
Interpolation	Off	RF pulse type	Normal
		Gradient mode	Fast
PAT mode	GRAPPA	Excitation	Slab-sel.
Accel. factor PE	4	RF spoiling	On
Ref. lines PE Accel. factor 3D	48 1	Use Ernst angle?	On
Ref. lines 3D	12	Log physio?	Off
Reference scan mode	Separate	FFT scale	1.00
		RF BWTP	25.0
Distortion Corr.	Off	bipolar water excite?	Off
Prescan Normalize	Off	EFFECTIVE TR	12896 ms
Raw filter	On	PatPartitions	

EPI phase correction local PAT refscan mode Flash FlashRef BaseRes 232 1000 Hz/px 4800 us FlashRef BW FlashRef TE 5 deg FlashRef FA use CAIPI On CAIPI shift kz 0 CAIPI shift ky 2 dummy prepscan time 3 s