Table of contents

				t1_mp2rage_sag_p2_iso_FLAWS_fast2_ti300 *
				pcasl_3d_tra_p2_fast_withintub *
				t2_tse_FLAIR_tra_fs_gobrain *
				t2_space_FLAIR_sag_p3_iso_fast4 *
				ep2d_diff_mddw_30_p2_s3_b700 *
				t2_fl2d_cor_p2_hemo *
				t2_swi_tra_p3_ir_magpha_2mm *

\\User\Head\Coma\Coma Science Group\AAhead_scout *
TA: 14 sec Coil Selection: Manual Voxel Size: 1.6×1.6×1.6 mm³ Acc:: 3 Rel. SNR: 1.00

Properties

Start measurement without further preparation	Off
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	On
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	3.2 ms
TE	1.37 ms
Averages	1
Concatenations	1
AutoAlign	Head
Coil Elements	HE1-4

Contrast - Common

TR	3.2 ms
TE	1.37 ms
Flip Angle	8 deg
Fat-Water Contrast	Standard
Contrasts	1
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Time to Center	6.2 s

Resolution - Common

FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
Base Resolution	160
Phase Resolution	100 %
Slice Resolution	69 %
Trajectory	Cartesian

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3

Resolution - Acceleration

Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	6/8
Slice Partial Fourier	6/8
Asymmetric Echo	Weak

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.6 mm
TR	3.2 ms
Multi-Slice Mode	Sequential
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Dynamic

Dynamic Mode	Standard
Flip Angle	8 deg
Measurements	1
Time to Center	6.2 s

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Save Original Images	On
Contrasts	1
TE	1.37 ms
TR	3.2 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Inline - MapIt

MapIt	None

Inline - MapIt

Flip Angle	8 deg
Measurements	1
Contrasts	1
TE	1.37 ms
TR	3.2 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	fl
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Bandwidth	540 Hz/Px
Asymmetric Echo	Weak

Sequence - Part 2

Introduction	On
RF Spoiling	On

Sequence - Assistant

SAR Assistant	Off

\\User\Head\Coma\Coma Science Group\ep2d_bold_moco_p2_s3_XA20_GA *
TA: 6:13 min Coil Selection: Auto Voxel Size: 3.0×3.0×3.0 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	39
Distance Factor	25 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	728.0 ms
TE	30.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	728.0 ms
TE	30.00 ms
MTC	Off
Flip Angle	35 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	500
Delay in TR	0.00 ms

Resolution - Common

FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	64
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	30
SMS Factor	3
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	3D
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	39
Distance Factor	25 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	728.0 ms
Multi-Slice Mode	Interleaved
Series	Descending
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
R	0.0 mm
A	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off

System - Adjustments

Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	146 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	728.0 ms
Concatenations	1

BOLD

GLM Statistics	On
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	40
Meas[1]	Active
Meas[2]	Active
Meas[3]	Active
Meas[4]	Active
Meas[5]	Active
Meas[6]	Active
Meas[7]	Active
Meas[8]	Active
Meas[9]	Active
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
Meas[21]	Ignore
Meas[22]	Ignore
Meas[23]	Ignore
Meas[24]	Ignore
Meas[25]	Ignore
Meas[26]	Ignore
Meas[27]	Ignore
Meas[28]	Ignore
Meas[29]	Ignore
Meas[30]	Ignore
Meas[31]	Ignore
Meas[32]	Ignore

BOLD

Meas[33]	Ignore
Meas[34]	Ignore
Meas[35]	Ignore
Meas[36]	Ignore
Meas[37]	Ignore
Meas[38]	Ignore
Meas[39]	Ignore
Meas[40]	Ignore
Motion Correction	Off
Spatial Filter	Off
Measurements	500
Delay in TR	0.00 ms

Sequence - Part 1

Sequence Name	epfid
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Bandwidth	2232 Hz/Px
Echo Spacing	0.54 ms
Free Echo Spacing	Off
EPI Factor	64

Sequence - Part 2

Introduction	On

\\User\Head\Coma\Coma Science Group\ep2d_bold_moco_p2_s3_XA20 *
TA: 6:13 min Coil Selection: Auto Voxel Size: 3.0×3.0×3.0 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	39
Distance Factor	25 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	728.0 ms
TE	30.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	728.0 ms
TE	30.00 ms
MTC	Off
Flip Angle	35 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	500
Delay in TR	0.00 ms

Resolution - Common

FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	64
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	30
SMS Factor	3
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	3D
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	39
Distance Factor	25 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	728.0 ms
Multi-Slice Mode	Interleaved
Series	Descending
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
R	0.0 mm
A	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off

System - Adjustments

Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	146 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	728.0 ms
Concatenations	1

BOLD

GLM Statistics	On
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	40
Meas[1]	Active
Meas[2]	Active
Meas[3]	Active
Meas[4]	Active
Meas[5]	Active
Meas[6]	Active
Meas[7]	Active
Meas[8]	Active
Meas[9]	Active
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
Meas[21]	Ignore
Meas[22]	Ignore
Meas[23]	Ignore
Meas[24]	Ignore
Meas[25]	Ignore
Meas[26]	Ignore
Meas[27]	Ignore
Meas[28]	Ignore
Meas[29]	Ignore
Meas[30]	Ignore
Meas[31]	Ignore
Meas[32]	Ignore

BOLD

Meas[33]	Ignore
Meas[34]	Ignore
Meas[35]	Ignore
Meas[36]	Ignore
Meas[37]	Ignore
Meas[38]	Ignore
Meas[39]	Ignore
Meas[40]	Ignore
Motion Correction	Off
Spatial Filter	Off
Measurements	500
Delay in TR	0.00 ms

Sequence - Part 1

Sequence Name	epfid
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Bandwidth	2232 Hz/Px
Echo Spacing	0.54 ms
Free Echo Spacing	Off
EPI Factor	64

Sequence - Part 2

Introduction	On

\\User\Head\Coma\Coma Science Group\gre_field_mapping *
TA: 57 sec Coil Selection: Manual Voxel Size: 3.0×3.0×3.0 mm³ Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	44
Distance Factor	25 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	427.0 ms
TE 1	4.92 ms
TE 2	7.38 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	427.0 ms
TE 1	4.92 ms
TE 2	7.38 ms
MTC	Off
Flip Angle	60 deg
Fat-Water Contrast	Standard
Contrasts	2
Reconstruction	Phase

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Off

Resolution - Common

FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	64
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Phase Partial Fourier	Off
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Off
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	44
Distance Factor	25 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	427.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L0.0 P0.0 H13.0
L	0.0 mm
P	0.0 mm
H	13.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	13 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off

System - Adjustments

Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
R >> L	192 mm
A >> P	192 mm
F >> H	165 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Sequence - Part 1

Sequence Name	fm_r
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	On
Bandwidth	601 Hz/Px
Asymmetric Echo	Off

Sequence - Part 2

Introduction	On
RF Spoiling	On

Sequence - Assistant

SAR Assistant	Off

\\User\Head\Coma\Coma Science Group\t1_mp2rage_sag_p2_iso_FLAWS_fast2 *
TA: 5:02 min Coil Selection: Manual Voxel Size: 1.0×1.0×1.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	176
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	93.8 %
Slice Thickness	1.0 mm
TR	2500.0 ms
TE	2.27 ms
Averages	1
Concatenations	1
AutoAlign	Head > Basis
Coil Elements	HE1-4

Contrast - Common

TR	2500.0 ms
TE	2.27 ms
Magn. Preparation	Non-sel. IR
TI 1	450 ms
TI 2	1350 ms
Flip Angle 1	4 deg
Flip Angle 2	4 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	256 mm
FoV Phase	93.8 %
Slice Thickness	1.0 mm
Base Resolution	256
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	32
Acceleration Factor 3D	1
Phase Partial Fourier	7/8
Slice Partial Fourier	7/8
Asymmetric Echo	Off
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	176
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	93.8 %
Slice Thickness	1.0 mm
TR	2500.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L

System - Miscellaneous

Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Sagittal
Rotation	0.00 deg
A >> P	240 mm
F >> H	256 mm
R >> L	176 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Non-sel. IR
TI 1	450 ms
TI 2	1350 ms
Dark Blood	Off
FoV Read	256 mm
FoV Phase	93.8 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On
TE	2.27 ms
TR	2500.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Inline - MapIt

MapIt	None
Flip Angle 1	4 deg
Flip Angle 2	4 deg
Measurements	1
TE	2.27 ms
TR	2500.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	tfl
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	350 Hz/Px
Echo Spacing	5.56 ms
Asymmetric Echo	Off
Turbo Factor	154

Sequence - Part 2

Introduction	On
RF Spoiling	On
Incr. Gradient Spoiling	Off

Sequence - Assistant

SAR Assistant	Off

\\User\Head\Coma\Coma Science Group\ep2d_diff_mddw_30_p2_s4_b700_AP_DO_NOT_READJUST *

TA: 1:38 min Coil Selection: Manual Voxel Size: 2.0×2.0×2.0 mm³ Acc:: 8 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	64
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	2200.0 ms
TE	87.00 ms
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	2200.0 ms
TE	87.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
Base Resolution	128
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	30
SMS Factor	4

Resolution - Acceleration

Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	64
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	2200.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
R	0.0 mm
A	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	256 mm
R >> L	256 mm
F >> H	166 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2200.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	MDDW
Diff. Directions	30
Diffusion Scheme	Bipolar
Diff. Weightings	2
b-value 1	0 s/mm²
b-value 2	700 s/mm²
Averages 1	5
Averages 2	1
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	On
Tensor	On
FA Maps	On
ADC Maps	On
Exponential ADC Maps	Off
ADC Noise Threshold	30
Noise Masking	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Low SAR
Gradient Mode	Fast
Bandwidth	1502 Hz/Px
Echo Spacing	0.77 ms
Free Echo Spacing	Off
Optimization	None

Sequence - Part 1

EPI Factor	128

Sequence - Part 2

Introduction	On
Phase Correction	Internal

\\User\Head\Coma\Coma Science Group\ep2d_diff_mddw_64_p2_s4_b1000_AP_DO_NOT_READJUST *

TA: 4:11 min Coil Selection: Manual Voxel Size: 2.0×2.0×2.0 mm³ Acc:: 8 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	64
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	3200.0 ms
TE	89.00 ms
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	3200.0 ms
TE	89.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
Base Resolution	128
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	30
SMS Factor	4

Resolution - Acceleration

Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	64
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	3200.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
R	0.0 mm
A	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	256 mm
R >> L	256 mm
F >> H	166 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3200.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	MDDW
Diff. Directions	64
Diffusion Scheme	Bipolar
Diff. Weightings	2
b-value 1	0 s/mm²
b-value 2	1000 s/mm²
Averages 1	5
Averages 2	1
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	On
Tensor	On
FA Maps	On
ADC Maps	On
Exponential ADC Maps	Off
ADC Noise Threshold	30
Noise Masking	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Low SAR
Gradient Mode	Fast
Bandwidth	1628 Hz/Px
Echo Spacing	0.72 ms
Free Echo Spacing	Off
Optimization	None

Sequence - Part 1

EPI Factor	128

Sequence - Part 2

Introduction	On
Phase Correction	Internal

\\User\Head\Coma\Coma Science Group\ep2d_diff_mddw_64_p2_s4_b2000_AP_DO_NOT_READJUST *
TA: 3:40 min Coil Selection: Manual Voxel Size: 2.0×2.0×2.0 mm³ Acc:: 8 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	64
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	2800.0 ms
TE	117.00 ms
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	2800.0 ms
TE	117.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
Base Resolution	128
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	30
SMS Factor	4

Resolution - Acceleration

Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	64
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	2800.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
R	0.0 mm
A	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	256 mm
R >> L	256 mm
F >> H	166 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2800.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	MDDW
Diff. Directions	64
Diffusion Scheme	Bipolar
Diff. Weightings	2
b-value 1	0 s/mm²
b-value 2	2000 s/mm²
Averages 1	5
Averages 2	1
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	On
Tensor	On
FA Maps	On
ADC Maps	On
Exponential ADC Maps	Off
ADC Noise Threshold	30
Noise Masking	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Low SAR
Gradient Mode	Fast
Bandwidth	1502 Hz/Px
Echo Spacing	0.77 ms
Free Echo Spacing	Off
Optimization	None

Sequence - Part 1

EPI Factor	128

Sequence - Part 2

Introduction	On
Phase Correction	Internal

\\User\Head\Coma\Coma Science Group\t2_space_FLAIR_sag_c4_iso *
TA: 4:35 min Coil Selection: Manual Voxel Size: 1.0×1.0×1.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	192
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	92.2 %
Slice Thickness	1.00 mm
TR	7600.0 ms
TE	432.00 ms
Averages	1.0
Concatenations	1
AutoAlign	Head > Basis
Coil Elements	HE1-4

Contrast - Common

TR	7600.0 ms
TE	432.00 ms
MTC	Off
Magn. Preparation	Non-sel. IR
TI 1	2400 ms
Flip Angle Mode	T2 Var
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	256 mm
FoV Phase	92.2 %
Slice Thickness	1.00 mm
Base Resolution	256
Phase Resolution	100 %
Slice Resolution	100 %

Resolution - Common

Interpolation	Off

Resolution - Acceleration

Acceleration mode	CAIPIRINHA
Total Factor	4
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	2
Reference Lines 3D	24
Reordering Shift 3D	0
Phase Partial Fourier	Allowed
Slice Partial Fourier	Off
Elliptical Scanning	On

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	192
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	92.2 %
Slice Thickness	1.00 mm
TR	7600.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Sagittal
Rotation	0.00 deg
A >> P	236 mm
F >> H	256 mm
R >> L	192 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	7600.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	Non-sel. IR
TI 1	2400 ms
Dark Blood	Off
FoV Read	256 mm
FoV Phase	92.2 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On

Inline - Cardiac

TE	432.00 ms
TR	7600.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	spcir
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	651 Hz/Px
Echo Spacing	3.66 ms
Turbo Factor	270
Echo Train Duration	922 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\User\Head\Coma\Coma Science Group\t2_swi_tra_fast *
TA: 2:07 min Coil Selection: Auto Voxel Size: 0.4×0.4×2.0 mm³ Acc:: 3 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	80
Phase Oversampling	0 %
Slice Oversampling	10.0 %
FoV Read	230 mm
FoV Phase	75.0 %
Slice Thickness	2.0 mm
TR	28.0 ms
TE	20.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	28.0 ms
TE	20.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	15 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	On
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	230 mm
FoV Phase	75.0 %
Slice Thickness	2.0 mm
Base Resolution	256
Phase Resolution	75 %
Slice Resolution	100 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	7/8
Slice Partial Fourier	7/8
Asymmetric Echo	Off
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	80
Phase Oversampling	0 %
Slice Oversampling	10.0 %
FoV Read	230 mm
FoV Phase	75.0 %
Slice Thickness	2.0 mm
TR	28.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	89.99 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Default

System - Miscellaneous

MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	89.99 deg
R >> L	173 mm
A >> P	230 mm
F >> H	160 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	28.0 ms
Segments	1
Concatenations	1

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	230 mm
FoV Phase	75.0 %
Phase Resolution	75 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	20.00 ms
TR	28.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off

Inline - MapIt

MapIt	None
Flip Angle	15 deg
Measurements	1
Contrasts	1
TE	20.00 ms
TR	28.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	swi_r
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	On
Bandwidth	120 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\User\Head\Coma\Coma Science Group\pcasl_3d_tra_p2_iso_3mm_highres_fast *

TA: 2:17 min Coil Selection: Auto Voxel Size: 1.5×1.5×3.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	P >> A
Slices per Slab	48
Phase Oversampling	15 %
Slice Oversampling	25.0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4380.0 ms
TE	20.30 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4;NE2

Contrast - Common

TR	4380.0 ms
TE	20.30 ms
Flip Angle	180 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	5
Multiple Series	Off
Delay in TR	0.00 ms
Reordering	Centric

Contrast - ASL

Perfusion Mode	PCASL
Suppression	Gray-White
Labeling Duration	1800 ms
Postlabeling Delay	1800 ms
Delay Array Size	1

Resolution - Common

FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	64

Resolution - Common

Phase Resolution	96 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	2
Reference Lines 3D	8
Phase Partial Fourier	7/8
Slice Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	3D
Normalize	Prescan

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	P >> A
Slices per Slab	48
Phase Oversampling	15 %
Slice Oversampling	25.0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	4380.0 ms
Multi-Slice Mode	Interleaved
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	P >> A
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Transversal
Initial Rotation	-180.00 deg

Geometry - Saturation

Special Saturation	Parallel F
Gap	35.00 mm

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Default
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	180.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	144 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4380.0 ms
Segments	3
Concatenations	1

Sequence - Part 1

Sequence Name	tgse
Dimension	3D
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Reordering	Centric
Bandwidth	2232 Hz/Px
Echo Spacing	0.54 ms
Turbo Factor	10
Segments	3
EPI Factor	31

Sequence - Part 2

Introduction	Off

\\User\Head\Coma\Coma Science Group\pd+t2_tse_tra_3mm *
TA: 2:08 min Coil Selection: Manual Voxel Size: 0.4×0.4×3.0 mm³ Acc:: 3 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	56
Distance Factor	0 %
Position	L0.0 A12.0 F5.0 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	230 mm
FoV Phase	75.0 %
Slice Thickness	3.0 mm
TR	3500.0 ms
TE 1	11.00 ms
TE 2	88.00 ms
Averages	1
Concatenations	2
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	3500.0 ms
TE 1	11.00 ms
TE 2	88.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	126 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	2
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	230 mm
FoV Phase	75.0 %
Slice Thickness	3.0 mm
Base Resolution	320
Phase Resolution	83 %
Trajectory	Cartesian
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	27
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	56
Distance Factor	0 %
Position	L0.0 A12.0 F5.0 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	230 mm
FoV Phase	75.0 %
Slice Thickness	3.0 mm
TR	3500.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	2

Geometry - AutoAlign

Slice Group	1
Position	L0.0 A12.0 F5.0 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L0.0 A12.0 F5.0
R	0.0 mm
A	12.0 mm
F	5.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	5 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine

System - Miscellaneous

Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3500.0 ms
Concatenations	2

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	230 mm
FoV Phase	75.0 %
Phase Resolution	83 %
Trajectory	Cartesian
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	2

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	2
TE 1	11.00 ms
TE 2	88.00 ms
TR	3500.0 ms

Inline - MIP

MIP Sag	Off

Inline - MIP

MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tse_rr
Dimension	2D
RF Pulse Type	Low SAR
Gradient Mode	Whisper
Flow Compensation	Read
Bandwidth	252 Hz/Px
Echo Spacing	10.9 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	5
Echo Trains per Slice	17

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Hyperecho	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On

Sequence - Assistant

SAR Assistant	Flip Angle
Min Flip Angle	130 deg
Allowed Delay	0 s

\\User\Head\Coma\Coma Science Group\t1_mp2rage_sag_p2_iso_fast *
TA: 5:36 min Coil Selection: Manual Voxel Size: 1.0×1.0×1.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	176
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	93.8 %
Slice Thickness	1.0 mm
TR	2790.0 ms
TE	2.27 ms
Averages	1
Concatenations	1
AutoAlign	Head > Basis
Coil Elements	HE1-4

Contrast - Common

TR	2790.0 ms
TE	2.27 ms
Magn. Preparation	Non-sel. IR
TI 1	700 ms
TI 2	2300 ms
Flip Angle 1	5 deg
Flip Angle 2	5 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	256 mm
FoV Phase	93.8 %
Slice Thickness	1.0 mm
Base Resolution	256
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	32
Acceleration Factor 3D	1
Phase Partial Fourier	7/8
Slice Partial Fourier	6/8
Asymmetric Echo	Off
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	176
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	93.8 %
Slice Thickness	1.0 mm
TR	2790.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L

System - Miscellaneous

Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Sagittal
Rotation	0.00 deg
A >> P	240 mm
F >> H	256 mm
R >> L	176 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2790.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Non-sel. IR
TI 1	700 ms
TI 2	2300 ms
Dark Blood	Off
FoV Read	256 mm
FoV Phase	93.8 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On
TE	2.27 ms
TR	2790.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Inline - MapIt

MapIt	None
Flip Angle 1	5 deg
Flip Angle 2	5 deg
Measurements	1
TE	2.27 ms
TR	2790.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	tfl
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	350 Hz/Px
Echo Spacing	5.56 ms
Asymmetric Echo	Off
Turbo Factor	132

Sequence - Part 2

Introduction	On
RF Spoiling	On
Incr. Gradient Spoiling	Off

Sequence - Assistant

SAR Assistant	Off

\\User\Head\Coma\Coma Science Group\tof_fl3d_tra *
TA: 5:33 min Coil Selection: Auto Voxel Size: 0.3×0.3×0.5 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	4
Distance Factor	-20 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	40
Phase Oversampling	0 %
Slice Oversampling	20.0 %
FoV Read	200 mm
FoV Phase	90.6 %
Slice Thickness	0.5 mm
TR	21.0 ms
TE	3.62 ms
Averages	1
Concatenations	4
AutoAlign	Head > Basis
Coil Elements	HE1-4;NE1,2

Contrast - Common

TR	21.0 ms
TE	3.62 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle Mode	Constant
Flip Angle	25 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	200 mm
FoV Phase	90.6 %
Slice Thickness	0.5 mm
Base Resolution	384
Phase Resolution	95 %

Resolution - Common

Slice Resolution	50 %
Trajectory	Cartesian
Interpolation	2.00

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	32
Acceleration Factor 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	7/8
Asymmetric Echo	Weak
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
POCS	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	4
Distance Factor	-20 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	40
Phase Oversampling	0 %
Slice Oversampling	20.0 %
FoV Read	200 mm
FoV Phase	90.6 %
Slice Thickness	0.5 mm
TR	21.0 ms
Multi-Slice Mode	Sequential
Series	Descending
Concatenations	4

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Basis
Initial Position	L0.0 P0.0 H10.0
L	0.0 mm
P	0.0 mm
H	10.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	Tracking H
Gap	10.00 mm
Thickness	40.00 mm

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	10 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Default
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	21.0 ms
Segments	1
Concatenations	4

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	200 mm
FoV Phase	90.6 %
Phase Resolution	95 %
Cine	Off
Trajectory	Cartesian
Dynamic Mode	Standard
Dummy Heartbeats	1

Physio - PACE

Resp. Control	Off
Concatenations	4

Inline - Dynamic

Dynamic Mode	Standard
MTC	Off
Flow Direction	F >> H
TONE Ramp	70 %
Flip Angle	25 deg
Measurements	1
Multiple Series	Each Measurement

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Inline Evaluation	Off
Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	3.62 ms
TR	21.0 ms

Inline - MIP

MIP Sag	On
MIP Cor	On
MIP Tra	On
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	fl_r
Dimension	3D
Sequence Type	Gre
Excitation	TONE
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	Slice/Read
Reordering	Linear
Bandwidth	186 Hz/Px
Echo Spacing	9.52 ms
Asymmetric Echo	Weak
Optimization	None
Define	Segments
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Phase Enc. Rewinder	On

Sequence - Assistant

SAR Assistant	Flip Angle
Min Flip Angle	16 deg
Allowed Delay	0 s
Optimization	None

\\User\Head\Coma\Coma Science Group\t1_mp2rage_sag_p2_iso_FLAWS *
TA: 10:02 min Coil Selection: Manual Voxel Size: 1.0×1.0×1.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	144
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	93.8 %
Slice Thickness	1.0 mm
TR	5000.0 ms
TE	2.90 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	5000.0 ms
TE	2.90 ms
Magn. Preparation	Non-sel. IR
TI 1	409 ms
TI 2	1210 ms
Flip Angle 1	5 deg
Flip Angle 2	5 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	256 mm
FoV Phase	93.8 %
Slice Thickness	1.0 mm
Base Resolution	256
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	32
Acceleration Factor 3D	1
Phase Partial Fourier	7/8
Slice Partial Fourier	6/8
Asymmetric Echo	Off
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	144
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	93.8 %
Slice Thickness	1.0 mm
TR	5000.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
R	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L

System - Miscellaneous

Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Sagittal
Rotation	0.00 deg
A >> P	240 mm
F >> H	256 mm
R >> L	144 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	5000.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Non-sel. IR
TI 1	409 ms
TI 2	1210 ms
Dark Blood	Off
FoV Read	256 mm
FoV Phase	93.8 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On
TE	2.90 ms
TR	5000.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Inline - MapIt

MapIt	None
Flip Angle 1	5 deg
Flip Angle 2	5 deg
Measurements	1
TE	2.90 ms
TR	5000.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	tfl
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	240 Hz/Px
Echo Spacing	6.88 ms
Asymmetric Echo	Off
Turbo Factor	108

Sequence - Part 2

Introduction	On
RF Spoiling	On
Incr. Gradient Spoiling	Off

Sequence - Assistant

SAR Assistant	Off

\\User\Head\Coma\Coma Science Group\t2_tse_tra_512_p2_fast *
TA: 40 sec Coil Selection: Auto Voxel Size: 0.4×0.4×4.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	34
Distance Factor	10 %
Position	L0.0 A12.0 F5.0 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	230 mm
FoV Phase	81.3 %
Slice Thickness	4.0 mm
TR	5950.0 ms
TE	103.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4;NE2

Contrast - Common

TR	5950.0 ms
TE	103.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	230 mm
FoV Phase	81.3 %
Slice Thickness	4.0 mm
Base Resolution	320
Phase Resolution	75 %
Trajectory	Cartesian
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA

Resolution - Acceleration

Reference Scans	TSE/Separate
Acceleration Factor PE	4
Reference Lines PE	64
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	34
Distance Factor	10 %
Position	L0.0 A12.0 F5.0 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	230 mm
FoV Phase	81.3 %
Slice Thickness	4.0 mm
TR	5950.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L0.0 A12.0 F5.0 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L0.0 A12.0 F5.0
L	0.0 mm
A	12.0 mm
F	5.0 mm
Initial Orientation	Transversal
Initial Rotation	89.99 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	5 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	Default
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	5950.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	230 mm
FoV Phase	81.3 %
Phase Resolution	75 %
Trajectory	Cartesian
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	103.00 ms
TR	5950.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off

Inline - MIP

Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tse
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	223 Hz/Px
Echo Spacing	9.36 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	15
Echo Trains per Slice	4

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Hyperecho	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	Off

Sequence - Assistant

SAR Assistant	TR
Max. TR	6500.0 ms
Allowed Delay	60 s

\\User\Head\Coma\Coma Science Group\t2_tse_tra_512_p2 *
TA: 1:21 min Coil Selection: Auto Voxel Size: 0.2×0.2×4.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	34
Distance Factor	10 %
Position	L0.0 A12.0 F5.0 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	230 mm
FoV Phase	81.3 %
Slice Thickness	4.0 mm
TR	5950.0 ms
TE	100.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4;NE2

Contrast - Common

TR	5950.0 ms
TE	100.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	230 mm
FoV Phase	81.3 %
Slice Thickness	4.0 mm
Base Resolution	512
Phase Resolution	75 %
Trajectory	Cartesian
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA

Resolution - Acceleration

Reference Scans	TSE/Separate
Acceleration Factor PE	2
Reference Lines PE	64
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	34
Distance Factor	10 %
Position	L0.0 A12.0 F5.0 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	230 mm
FoV Phase	81.3 %
Slice Thickness	4.0 mm
TR	5950.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L0.0 A12.0 F5.0 mm
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L0.0 A12.0 F5.0
R	0.0 mm
A	12.0 mm
F	5.0 mm
Initial Orientation	Transversal
Initial Rotation	89.99 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	5 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	Default
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	5950.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	230 mm
FoV Phase	81.3 %
Phase Resolution	75 %
Trajectory	Cartesian
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	100.00 ms
TR	5950.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off

Inline - MIP

Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tse
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	222 Hz/Px
Echo Spacing	11.1 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	15
Echo Trains per Slice	11

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Hyperecho	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	Off

Sequence - Assistant

SAR Assistant	TR
Max. TR	6500.0 ms
Allowed Delay	60 s

\\User\Head\Coma\Coma Science Group\ep2d_diff_mddw_30_p2_s3_b700_AP *
TA: 2:07 min Coil Selection: Manual Voxel Size: 2.0×2.0×2.0 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	66
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	3000.0 ms
TE	94.00 ms
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	3000.0 ms
TE	94.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
Base Resolution	128
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	30
SMS Factor	3
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	66
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	3000.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Performance

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto

System - Adjustments

Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	256 mm
R >> L	256 mm
F >> H	171 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3000.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	MDDW
Diff. Directions	30
Diffusion Scheme	Bipolar
Diff. Weightings	2
b-value 1	0 s/mm²
b-value 2	700 s/mm²
Averages 1	5
Averages 2	1
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	On
Tensor	On
FA Maps	On
ADC Maps	On
Exponential ADC Maps	Off
ADC Noise Threshold	30
Noise Masking	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Low SAR
Gradient Mode	Fast
Bandwidth	1562 Hz/Px
Echo Spacing	0.72 ms
Free Echo Spacing	Off
Optimization	None
EPI Factor	128

Sequence - Part 2

Introduction	On

Sequence - Part 2

Phase Correction	Internal

\\User\Head\Coma\Coma Science Group\ep2d_diff_mddw_64_p2_s3_b1000_AP_DO_NOT_READJUST *
TA: 5:35 min Coil Selection: Manual Voxel Size: 2.0×2.0×2.0 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	66
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	4400.0 ms
TE	89.00 ms
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	4400.0 ms
TE	89.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
Base Resolution	128
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	30
SMS Factor	3

Resolution - Acceleration

Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	66
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	4400.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Performance

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	256 mm
R >> L	256 mm
F >> H	171 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4400.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	MDDW
Diff. Directions	64
Diffusion Scheme	Bipolar
Diff. Weightings	2
b-value 1	0 s/mm²
b-value 2	1000 s/mm²
Averages 1	5
Averages 2	1
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	On
Tensor	On
FA Maps	On
ADC Maps	On
Exponential ADC Maps	Off
ADC Noise Threshold	30
Noise Masking	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Low SAR
Gradient Mode	Fast
Bandwidth	1562 Hz/Px
Echo Spacing	0.72 ms
Free Echo Spacing	Off
Optimization	None

Sequence - Part 1

EPI Factor	128

Sequence - Part 2

Introduction	On
Phase Correction	Internal

\\User\Head\Coma\Coma Science Group\ep2d_diff_mddw_64_p2_s3_b2000_AP_DO_NOT_READJUST *
TA: 5:43 min Coil Selection: Manual Voxel Size: 2.0×2.0×2.0 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	66
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	4500.0 ms
TE	110.00 ms
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	4500.0 ms
TE	110.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
Base Resolution	128
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	30
SMS Factor	3

Resolution - Acceleration

Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	66
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	4500.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Performance

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	256 mm
R >> L	256 mm
F >> H	171 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4500.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	MDDW
Diff. Directions	64
Diffusion Scheme	Bipolar
Diff. Weightings	2
b-value 1	0 s/mm²
b-value 2	2000 s/mm²
Averages 1	5
Averages 2	1
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	On
Tensor	On
FA Maps	On
ADC Maps	On
Exponential ADC Maps	Off
ADC Noise Threshold	30
Noise Masking	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Low SAR
Gradient Mode	Fast
Bandwidth	1562 Hz/Px
Echo Spacing	0.72 ms
Free Echo Spacing	Off
Optimization	None

Sequence - Part 1

EPI Factor	128

Sequence - Part 2

Introduction	On
Phase Correction	Internal

\\User\Head\Coma\Coma Science Group\ep2d_diff_mddw_6_p2_s3_5b0_PA_DO_NOT_READJUST *
TA: 45 sec Coil Selection: Manual Voxel Size: 2.0×2.0×2.0 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	66
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	P >> A
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	4400.0 ms
TE	89.00 ms
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	4400.0 ms
TE	89.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
Base Resolution	128
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	30
SMS Factor	3
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	66
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	P >> A
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	4400.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	P >> A
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	180.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Performance

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto

System - Adjustments

Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

! Position	Isocenter
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	256 mm
! R >> L	256 mm
! F >> H	171 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	4400.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	MDDW
Diff. Directions	6
Diffusion Scheme	Bipolar
Diff. Weightings	1
b-value	0 s/mm²
Averages	5
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	Off
Tensor	Off
FA Maps	Off
ADC Maps	Off
Exponential ADC Maps	Off
Noise Masking	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Low SAR
Gradient Mode	Fast
Bandwidth	1562 Hz/Px
Echo Spacing	0.72 ms
Free Echo Spacing	Off
Optimization	None
EPI Factor	128

Sequence - Part 2

Introduction	On
Phase Correction	Internal

\\User\Head\Coma\Coma Science Group\pcasl_3d_tra_p2_iso_3mm_highres_fast_withintub *
TA: 2:55 min Coil Selection: Auto Voxel Size: 1.5×1.5×3.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	P >> A
Slices per Slab	48
Phase Oversampling	15 %
Slice Oversampling	25.0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	5600.0 ms
TE	20.30 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4;NE2

Contrast - Common

TR	5600.0 ms
TE	20.30 ms
Flip Angle	180 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	5
Multiple Series	Off
Delay in TR	0.00 ms
Reordering	Centric

Contrast - ASL

Perfusion Mode	PCASL
Suppression	Gray-White
Labeling Duration	1800 ms
Postlabeling Delay	1800 ms
Delay Array Size	1

Resolution - Common

FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	64

Resolution - Common

Phase Resolution	96 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	2
Reference Lines 3D	8
Phase Partial Fourier	7/8
Slice Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	3D
Normalize	Prescan

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	P >> A
Slices per Slab	48
Phase Oversampling	15 %
Slice Oversampling	25.0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	5600.0 ms
Multi-Slice Mode	Interleaved
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	P >> A
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Transversal
Initial Rotation	180.00 deg

Geometry - Saturation

Special Saturation	Parallel F
Gap	35.00 mm

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Default
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	180.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	144 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	5600.0 ms
Segments	3
Concatenations	1

Sequence - Part 1

Sequence Name	tgse
Dimension	3D
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Reordering	Centric
Bandwidth	2232 Hz/Px
Echo Spacing	0.54 ms
Turbo Factor	10
Segments	3
EPI Factor	31

Sequence - Part 2

Introduction	Off

\\User\Head\Coma\Coma Science Group\t1_mprage_tra_p2_iso_optimized *
TA: 3:40 min Coil Selection: Manual Voxel Size: 1.0×1.0×1.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	192
Phase Oversampling	10 %
Slice Oversampling	16.7 %
FoV Read	250 mm
FoV Phase	81.3 %
Slice Thickness	1.0 mm
TR	1950.0 ms
TE	2.82 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	1950.0 ms
TE	2.82 ms
Magn. Preparation	Non-sel. IR
TI	950 ms
Flip Angle	12 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	250 mm
FoV Phase	81.3 %
Slice Thickness	1.0 mm
Base Resolution	256
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	7/8
Slice Partial Fourier	Off
Asymmetric Echo	Allowed
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	On

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	192
Phase Oversampling	10 %
Slice Oversampling	16.7 %
FoV Read	250 mm
FoV Phase	81.3 %
Slice Thickness	1.0 mm
TR	1950.0 ms
Multi-Slice Mode	Sequential
Series	Descending
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L0.0 P0.0 H13.0
L	0.0 mm
P	0.0 mm
H	13.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	13 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L

System - Miscellaneous

Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	1950.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Non-sel. IR
TI	950 ms
Dark Blood	Off
FoV Read	250 mm
FoV Phase	81.3 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On
TE	2.82 ms
TR	1950.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Inline - MapIt

MapIt	None
Flip Angle	12 deg
Measurements	1
TE	2.82 ms
TR	1950.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	tfl
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	None
Reordering	Linear
Bandwidth	190 Hz/Px
Echo Spacing	8.10 ms
Asymmetric Echo	Allowed
Turbo Factor	224

Sequence - Part 2

Introduction	On
RF Spoiling	On
Incr. Gradient Spoiling	On

Sequence - Assistant

SAR Assistant	Off

\\User\Head\Coma\Coma Science Group\t2_space_dark-fluid_sag_p2_cp4_ns-IR_0.5x0.5x1.0_mtc_v arflipangl *	
TA: 4:06 min Coil Selection: Auto Voxel Size: 0.5×0.5×1.0 mm³ Acc:: 4 Rel. SNR: 1.00	

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	192
Phase Oversampling	0 %
Slice Oversampling	8.3 %
FoV Read	250 mm
FoV Phase	100.0 %
Slice Thickness	1.00 mm
TR	7600.0 ms
TE	430.00 ms
Averages	1.0
Concatenations	1
AutoAlign	Head > Basis
Coil Elements	HE1-4

Contrast - Common

TR	7600.0 ms
TE	430.00 ms
MTC	On
Magn. Preparation	Non-sel. IR
TI 1	2400 ms
Flip Angle Mode	T2 Var
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	250 mm
FoV Phase	100.0 %
Slice Thickness	1.00 mm
Base Resolution	256
Phase Resolution	101 %

Resolution - Common

Slice Resolution	61 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	CAIPIRINHA
Total Factor	4
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	16
Acceleration Factor 3D	2
Reference Lines 3D	24
Reordering Shift 3D	0
Phase Partial Fourier	Allowed
Slice Partial Fourier	Off
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	192
Phase Oversampling	0 %
Slice Oversampling	8.3 %
FoV Read	250 mm
FoV Phase	100.0 %
Slice Thickness	1.00 mm
TR	7600.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off

Geometry - Tim Planning Suite

Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Default
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Sagittal
Rotation	0.00 deg
A >> P	250 mm
F >> H	250 mm
R >> L	192 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	7600.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	Non-sel. IR
TI 1	2400 ms
Dark Blood	Off
FoV Read	250 mm
FoV Phase	100.0 %
Phase Resolution	101 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off

Inline - Subtraction

Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On
TE	430.00 ms
TR	7600.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	spcir
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	651 Hz/Px
Echo Spacing	3.64 ms
Turbo Factor	268
Echo Train Duration	914 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\User\Head\Coma\Coma Science Group\t2_space_FLAIR_sag_p3_iso *
TA: 3:12 min Coil Selection: Manual Voxel Size: 0.5×0.5×1.0 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	192
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	92.2 %
Slice Thickness	1.00 mm
TR	7600.0 ms
TE	432.00 ms
Averages	1.0
Concatenations	1
AutoAlign	Head > Basis
Coil Elements	HE1-4

Contrast - Common

TR	7600.0 ms
TE	432.00 ms
MTC	On
Magn. Preparation	Non-sel. IR
TI 1	2400 ms
Flip Angle Mode	T2 Var
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	256 mm
FoV Phase	92.2 %
Slice Thickness	1.00 mm
Base Resolution	256
Phase Resolution	100 %
Slice Resolution	100 %

Resolution - Common

Interpolation	On

Resolution - Acceleration

Acceleration mode	CAIPIRINHA
Total Factor	6
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	24
Acceleration Factor 3D	2
Reference Lines 3D	24
Reordering Shift 3D	0
Phase Partial Fourier	Allowed
Slice Partial Fourier	Off
Elliptical Scanning	On

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	192
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	92.2 %
Slice Thickness	1.00 mm
TR	7600.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Sagittal
Rotation	0.00 deg
A >> P	236 mm
F >> H	256 mm
R >> L	192 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	7600.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	Non-sel. IR
TI 1	2400 ms
Dark Blood	Off
FoV Read	256 mm
FoV Phase	92.2 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On

Inline - Cardiac

TE	432.00 ms
TR	7600.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	spcir
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	651 Hz/Px
Echo Spacing	3.66 ms
Turbo Factor	270
Echo Train Duration	922 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\User\Head\Coma\Coma Science Group\t2_swi_tra_p2s2_ir_2mm *

TA: 3:00 min Coil Selection: Manual Voxel Size: 0.3×0.3×2.0 mm³ Acc:: 4 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	80
Phase Oversampling	0 %
Slice Oversampling	10.0 %
FoV Read	220 mm
FoV Phase	87.5 %
Slice Thickness	2.0 mm
TR	28.0 ms
TE	20.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	28.0 ms
TE	20.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	15 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magn./Phase

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	220 mm
FoV Phase	87.5 %
Slice Thickness	2.0 mm
Base Resolution	384
Phase Resolution	80 %
Slice Resolution	100 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	2
Reference Lines 3D	24
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Off
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	80
Phase Oversampling	0 %
Slice Oversampling	10.0 %
FoV Read	220 mm
FoV Phase	87.5 %
Slice Thickness	2.0 mm
TR	28.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Sum of Squares
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
R >> L	193 mm
A >> P	220 mm
F >> H	160 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	28.0 ms
Segments	1
Concatenations	1

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	220 mm
FoV Phase	87.5 %
Phase Resolution	80 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	20.00 ms
TR	28.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off

Inline - MapIt

MapIt	None
Flip Angle	15 deg
Measurements	1
Contrasts	1
TE	20.00 ms
TR	28.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	fl_r
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	On
Bandwidth	120 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\User\Head\Coma\Coma Science Group\t2_swi_tra_p3_384_2mm *
TA: 3:24 min Coil Selection: Manual Voxel Size: 0.3×0.3×2.0 mm³ Acc:: 3 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	80
Phase Oversampling	0 %
Slice Oversampling	10.0 %
FoV Read	220 mm
FoV Phase	87.5 %
Slice Thickness	2.0 mm
TR	28.0 ms
TE	20.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	28.0 ms
TE	20.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	15 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	On
Reconstruction	Magn./Phase

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	220 mm
FoV Phase	87.5 %
Slice Thickness	2.0 mm
Base Resolution	384
Phase Resolution	80 %
Slice Resolution	100 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	7/8
Slice Partial Fourier	7/8
Asymmetric Echo	Off
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	80
Phase Oversampling	0 %
Slice Oversampling	10.0 %
FoV Read	220 mm
FoV Phase	87.5 %
Slice Thickness	2.0 mm
TR	28.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual

System - Miscellaneous

MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
R >> L	193 mm
A >> P	220 mm
F >> H	160 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	28.0 ms
Segments	1
Concatenations	1

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	220 mm
FoV Phase	87.5 %
Phase Resolution	80 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	20.00 ms
TR	28.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off

Inline - MapIt

MapIt	None
Flip Angle	15 deg
Measurements	1
Contrasts	1
TE	20.00 ms
TR	28.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	qswi_r
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	On
Bandwidth	120 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\User\Head\Coma\Coma Science Group\ep2d_bold_repos_moco_s3_p2_long_avec_AG *

TA: 6:13 min Coil Selection: Auto Voxel Size: 3.0×3.0×3.0 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	39
Distance Factor	25 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	728.0 ms
TE	30.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	728.0 ms
TE	30.00 ms
MTC	Off
Flip Angle	35 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	500
Delay in TR	0.00 ms

Resolution - Common

FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	64
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	32
SMS Factor	3
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	3D
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	39
Distance Factor	25 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	728.0 ms
Multi-Slice Mode	Interleaved
Series	Descending
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off

System - Adjustments

Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	146 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
! Ref. Amplitude 1H	353.882 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	728.0 ms
Concatenations	1

BOLD

GLM Statistics	On
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	30
Meas[1]	Active
Meas[2]	Active
Meas[3]	Active
Meas[4]	Active
Meas[5]	Active
Meas[6]	Active
Meas[7]	Active
Meas[8]	Active
Meas[9]	Active
Meas[10]	Active
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Ignore
Meas[17]	Ignore
Meas[18]	Ignore
Meas[19]	Ignore
Meas[20]	Ignore
Meas[21]	Ignore
Meas[22]	Ignore
Meas[23]	Ignore
Meas[24]	Ignore
Meas[25]	Ignore
Meas[26]	Ignore
Meas[27]	Ignore
Meas[28]	Ignore
Meas[29]	Ignore
Meas[30]	Ignore
Motion Correction	Off
Spatial Filter	Off

BOLD

Measurements	500
Delay in TR	0.00 ms

Sequence - Part 1

Sequence Name	epfid
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast*
Bandwidth	2232 Hz/Px
Echo Spacing	0.54 ms
Free Echo Spacing	Off
EPI Factor	64

Sequence - Part 2

Introduction	On

\\User\Head\Coma\Coma Science Group\t1_mprage_tra_p2_iso *
TA: 3:15 min Coil Selection: Manual Voxel Size: 1.0×1.0×1.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	L5.3 P14.5 H17.7 mm
Orientation	T > S3.4 > C-1.4
Phase Encoding Dir.	R >> L
Slices per Slab	160
Phase Oversampling	10 %
Slice Oversampling	20.0 %
FoV Read	250 mm
FoV Phase	81.3 %
Slice Thickness	1.0 mm
TR	1730.0 ms
TE	2.82 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	1730.0 ms
TE	2.82 ms
Magn. Preparation	Non-sel. IR
TI	950 ms
Flip Angle	12 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	250 mm
FoV Phase	81.3 %
Slice Thickness	1.0 mm
Base Resolution	256
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	7/8
Slice Partial Fourier	Off
Asymmetric Echo	Allowed
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	On

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	L5.3 P14.5 H17.7 mm
Orientation	T > S3.4 > C-1.4
Phase Encoding Dir.	R >> L
Slices per Slab	160
Phase Oversampling	10 %
Slice Oversampling	20.0 %
FoV Read	250 mm
FoV Phase	81.3 %
Slice Thickness	1.0 mm
TR	1730.0 ms
Multi-Slice Mode	Sequential
Series	Descending
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L5.3 P14.5 H17.7 mm
Orientation	T > S3.4 > C-1.4
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L

System - Miscellaneous

Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	1730.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Non-sel. IR
TI	950 ms
Dark Blood	Off
FoV Read	250 mm
FoV Phase	81.3 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On
TE	2.82 ms
TR	1730.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Inline - MapIt

MapIt	None
Flip Angle	12 deg
Measurements	1
TE	2.82 ms
TR	1730.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	tfl
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	None
Reordering	Linear
Bandwidth	190 Hz/Px
Echo Spacing	8.10 ms
Asymmetric Echo	Allowed
Turbo Factor	192

Sequence - Part 2

Introduction	On
RF Spoiling	On
Incr. Gradient Spoiling	On

Sequence - Assistant

SAR Assistant	Off

\\User\Head\Coma\Coma Science Group\dir_space_sag_1.2mm_4min_GMIR *

TA: 4:37 min Coil Selection: Manual Voxel Size: 1.0×1.0×1.2 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L6.9 A0.7 F10.8 mm
Orientation	S > C-5.1 > T-3.2
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	12.5 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.20 mm
TR	5500.0 ms
TE	254.00 ms
Averages	1.0
Concatenations	1
AutoAlign	Head > Basis
Coil Elements	HE1-4

Contrast - Common

TR	5500.0 ms
TE	254.00 ms
MTC	Off
Magn. Preparation	Non-sel. DIR
TI 1	2600 ms
TI 2	625 ms
Flip Angle Mode	T2 Var
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.20 mm
Base Resolution	256
Phase Resolution	80 %

Resolution - Common

Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Total Factor	2
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	Allowed
Slice Partial Fourier	7/8
Elliptical Scanning	On

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	On

Geometry - Common

Slab Group	1
Slabs	1
Position	L6.9 A0.7 F10.8 mm
Orientation	S > C-5.1 > T-3.2
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	12.5 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.20 mm
TR	5500.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L6.9 A0.7 F10.8 mm
Orientation	S > C-5.1 > T-3.2
Phase Encoding Dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
R	0.0 mm
A	0.0 mm
H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L6.9 A0.7 F10.8 mm
Orientation	S > C-5.1 > T-3.2
Rotation	-2.88 deg
A >> P	260 mm
F >> H	260 mm
R >> L	154 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	5500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	Non-sel. DIR
TI 1	2600 ms
TI 2	625 ms
Dark Blood	Off
FoV Read	260 mm
FoV Phase	100.0 %
Phase Resolution	80 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. DIR

Inline - Cardiac

Save Original Images	On
TE	254.00 ms
TR	5500.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	spcir
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	849 Hz/Px
Echo Spacing	3.38 ms
Turbo Factor	256
Echo Train Duration	683 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\User\Head\Coma\Coma Science Group\dir_space_sag_1.5mm_WMIR_FGATIR *
TA: 2:54 min Coil Selection: Manual Voxel Size: 1.0×1.0×1.5 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	L6.9 A0.7 F10.8 mm
Orientation	S > C-5.1 > T-3.2
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	12.5 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.50 mm
TR	4000.0 ms
TE	326.00 ms
Averages	1.0
Concatenations	1
AutoAlign	Head > Basis
Coil Elements	HE1-4

Contrast - Common

TR	4000.0 ms
TE	326.00 ms
MTC	Off
Magn. Preparation	Non-sel. DIR
TI 1	3000 ms
TI 2	450 ms
Flip Angle Mode	T2 Var
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.50 mm
Base Resolution	256
Phase Resolution	80 %

Resolution - Common

Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Total Factor	2
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	On

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	On

Geometry - Common

Slab Group	1
Slabs	1
Position	L6.9 A0.7 F10.8 mm
Orientation	S > C-5.1 > T-3.2
Phase Encoding Dir.	A >> P
Slices per Slab	128
Phase Oversampling	0 %
Slice Oversampling	12.5 %
FoV Read	260 mm
FoV Phase	100.0 %
Slice Thickness	1.50 mm
TR	4000.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L6.9 A0.7 F10.8 mm
Orientation	S > C-5.1 > T-3.2
Phase Encoding Dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
R	0.0 mm
A	0.0 mm
H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L6.9 A0.7 F10.8 mm
Orientation	S > C-5.1 > T-3.2
Rotation	-2.88 deg
A >> P	260 mm
F >> H	260 mm
R >> L	192 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	4000.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	Non-sel. DIR
TI 1	3000 ms
TI 2	450 ms
Dark Blood	Off
FoV Read	260 mm
FoV Phase	100.0 %
Phase Resolution	80 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. DIR

Inline - Cardiac

Save Original Images	On
TE	326.00 ms
TR	4000.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	spcir
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	751 Hz/Px
Echo Spacing	3.40 ms
Turbo Factor	256
Echo Train Duration	758 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\User\Head\Coma\Coma Science Group\ep2d_bold_repos_moco_s3_p2_short_sansAG *

TA: 3:48 min Coil Selection: Auto Voxel Size: 3.0×3.0×3.0 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	On
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	39
Distance Factor	25 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	728.0 ms
TE	30.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	728.0 ms
TE	30.00 ms
MTC	Off
Flip Angle	35 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	300
Delay in TR	0.00 ms

Resolution - Common

FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
Base Resolution	64
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	30
SMS Factor	3
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	3D
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	39
Distance Factor	25 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	192 mm
FoV Phase	100.0 %
Slice Thickness	3.0 mm
TR	728.0 ms
Multi-Slice Mode	Interleaved
Series	Descending
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
R	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Auto Coil Select
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off

System - Adjustments

Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	192 mm
R >> L	192 mm
F >> H	146 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
! Ref. Amplitude 1H	353.882 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	728.0 ms
Concatenations	1

BOLD

GLM Statistics	Off
Ignore Meas. at Start	0
Ignore After Transition	0
Model Transition States	On
Temp. Highpass Filter	On
Threshold	4.00
Paradigm Size	30
Meas[1]	Active
Meas[2]	Active
Meas[3]	Active
Meas[4]	Active
Meas[5]	Active
Meas[6]	Active
Meas[7]	Active
Meas[8]	Active
Meas[9]	Active
Meas[10]	Active
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Ignore
Meas[17]	Ignore
Meas[18]	Ignore
Meas[19]	Ignore
Meas[20]	Ignore
Meas[21]	Ignore
Meas[22]	Ignore
Meas[23]	Ignore
Meas[24]	Ignore
Meas[25]	Ignore
Meas[26]	Ignore
Meas[27]	Ignore
Meas[28]	Ignore
Meas[29]	Ignore
Meas[30]	Ignore
Motion Correction	On
Spatial Filter	Off

BOLD

Measurements	300
Delay in TR	0.00 ms

Sequence - Part 1

Sequence Name	epfid
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast*
Bandwidth	2232 Hz/Px
Echo Spacing	0.54 ms
Free Echo Spacing	Off
EPI Factor	64

Sequence - Part 2

Introduction	On

\\User\Head\Coma\Coma Science Group\t2_haste_tra_p2 *
TA: 44 sec Coil Selection: Manual Voxel Size: 0.7×0.7×4.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	Off
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	28
Distance Factor	30 %
Position	L3.7 P17.4 F7.3 mm
Orientation	T > C-5.3 > S-3.0
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	220 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	1500.0 ms
TE	70.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	1500.0 ms
TE	70.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	150 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	220 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
Base Resolution	320
Phase Resolution	80 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated

Resolution - Acceleration

Acceleration Factor PE	2
Reference Lines PE	24
Phase Partial Fourier	5/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	28
Distance Factor	30 %
Position	L3.7 P17.4 F7.3 mm
Orientation	T > C-5.3 > S-3.0
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	220 mm
FoV Phase	100.0 %
Slice Thickness	4.0 mm
TR	1500.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	L3.7 P17.4 F7.3 mm
Orientation	T > C-5.3 > S-3.0
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	1500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	220 mm
FoV Phase	100.0 %
Phase Resolution	80 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	70.00 ms
TR	1500.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On

Inline - MIP

MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	h
Dimension	2D
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	601 Hz/Px
Echo Spacing	4.68 ms
Turbo Factor	256

Sequence - Part 2

Introduction	On
Hyperecho	Off

Sequence - Assistant

SAR Assistant	Flip Angle
Min Flip Angle	130 deg
Allowed Delay	30 s

\\User\Head\Coma\Coma Science Group\t2_space_FLAIR_sag_p3_iso *
TA: 6:37 min Coil Selection: Manual Voxel Size: 1.0×1.0×1.0 mm³ Acc:: 3 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	192
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	92.2 %
Slice Thickness	1.00 mm
TR	7600.0 ms
TE	432.00 ms
Averages	1.0
Concatenations	1
AutoAlign	Head > Basis
Coil Elements	HE1-4

Contrast - Common

TR	7600.0 ms
TE	432.00 ms
MTC	Off
Magn. Preparation	Non-sel. IR
TI 1	2400 ms
Flip Angle Mode	T2 Var
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	256 mm
FoV Phase	92.2 %
Slice Thickness	1.00 mm
Base Resolution	256
Phase Resolution	100 %
Slice Resolution	100 %

Resolution - Common

Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Total Factor	3
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	Allowed
Slice Partial Fourier	7/8
Elliptical Scanning	On

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	192
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	92.2 %
Slice Thickness	1.00 mm
TR	7600.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Sagittal
Rotation	0.00 deg
A >> P	236 mm
F >> H	256 mm
R >> L	192 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	7600.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	Non-sel. IR
TI 1	2400 ms
Dark Blood	Off
FoV Read	256 mm
FoV Phase	92.2 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On

Inline - Cardiac

TE	432.00 ms
TR	7600.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	spcir
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	651 Hz/Px
Echo Spacing	3.66 ms
Turbo Factor	270
Echo Train Duration	922 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\User\Head\Coma\Coma Science Group\t1_mp2rage_sag_p2_iso_FLAWS_fast2_ti300 *
TA: 5:02 min Coil Selection: Manual Voxel Size: 1.0×1.0×1.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	176
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	93.8 %
Slice Thickness	1.0 mm
TR	2500.0 ms
TE	2.27 ms
Averages	1
Concatenations	1
AutoAlign	Head > Basis
Coil Elements	HE1-4

Contrast - Common

TR	2500.0 ms
TE	2.27 ms
Magn. Preparation	Non-sel. IR
TI 1	300 ms
TI 2	1220 ms
Flip Angle 1	4 deg
Flip Angle 2	4 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	256 mm
FoV Phase	93.8 %
Slice Thickness	1.0 mm
Base Resolution	256
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	32
Acceleration Factor 3D	1
Phase Partial Fourier	7/8
Slice Partial Fourier	6/8
Asymmetric Echo	Off
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	176
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	93.8 %
Slice Thickness	1.0 mm
TR	2500.0 ms
Multi-Slice Mode	Single Shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L

System - Miscellaneous

Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Sagittal
Rotation	0.00 deg
A >> P	240 mm
F >> H	256 mm
R >> L	176 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	2500.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Standard
Magn. Preparation	Non-sel. IR
TI 1	300 ms
TI 2	1220 ms
Dark Blood	Off
FoV Read	256 mm
FoV Phase	93.8 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On
TE	2.27 ms
TR	2500.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Inline - MapIt

MapIt	None
Flip Angle 1	4 deg
Flip Angle 2	4 deg
Measurements	1
TE	2.27 ms
TR	2500.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	tfl
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	350 Hz/Px
Echo Spacing	5.56 ms
Asymmetric Echo	Off
Turbo Factor	132

Sequence - Part 2

Introduction	On
RF Spoiling	On
Incr. Gradient Spoiling	Off

Sequence - Assistant

SAR Assistant	Off

\\User\Head\Coma\Coma Science Group\pcasl_3d_tra_p2_fast_withintub *
TA: 2:21 min Coil Selection: Auto Voxel Size: 2.0×2.0×5.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	L5.7 P11.8 H27.6 mm
Orientation	T > S-5.1 > C-4.8
Phase Encoding Dir.	P >> A
Slices per Slab	32
Phase Oversampling	0 %
Slice Oversampling	25.0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	5.0 mm
TR	5600.0 ms
TE	18.20 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4;NE2

Contrast - Common

TR	5600.0 ms
TE	18.20 ms
Flip Angle	180 deg
Fat-Water Contrast	Fat Saturation
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	3
Multiple Series	Off
Delay in TR	0.00 ms
Reordering	Centric

Contrast - ASL

Perfusion Mode	PCASL
Suppression	Gray-White
Labeling Duration	1800 ms
Postlabeling Delay	1800 ms
Delay Array Size	1

Resolution - Common

FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	5.0 mm
Base Resolution	64

Resolution - Common

Phase Resolution	97 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Reference Lines 3D	8
Phase Partial Fourier	Off
Slice Partial Fourier	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Hamming	Off
Distortion Correction	3D
Normalize	Prescan

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	50 %
Position	L5.7 P11.8 H27.6 mm
Orientation	T > S-5.1 > C-4.8
Phase Encoding Dir.	P >> A
Slices per Slab	32
Phase Oversampling	0 %
Slice Oversampling	25.0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	5.0 mm
TR	5600.0 ms
Multi-Slice Mode	Interleaved
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L5.7 P11.8 H27.6 mm
Orientation	T > S-5.1 > C-4.8
Phase Encoding Dir.	P >> A
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Transversal
Initial Rotation	180.00 deg

Geometry - Saturation

Special Saturation	Parallel F
Gap	35.00 mm

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Default
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L5.7 P11.8 H27.6 mm
Orientation	T > S-5.1 > C-4.8
Rotation	176.84 deg
A >> P	256 mm
R >> L	256 mm
F >> H	160 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	5600.0 ms
Segments	4
Concatenations	1

Sequence - Part 1

Sequence Name	tgse
Dimension	3D
Excitation	Standard
RF Pulse Type	Normal
Gradient Mode	Fast
Reordering	Centric
Bandwidth	3126 Hz/Px
Echo Spacing	0.40 ms
Turbo Factor	10
Segments	4
EPI Factor	31

Sequence - Part 2

Introduction	Off

\\User\Head\Coma\Coma Science Group\t2_tse_FLAIR_tra_fs_gobrain *
TA: 4:01 min Coil Selection: Memory Voxel Size: 0.9×0.9×1.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

Routine

Slice Group	1
Slices	122
Distance Factor	10 %
Position	L3.7 P17.4 F7.3 mm
Orientation	T > C-5.3 > S-3.0
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	230 mm
FoV Phase	75.0 %
Slice Thickness	1.0 mm
TR	15960.0 ms
TE	109.00 ms
Averages	1
Concatenations	3
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	15960.0 ms
TE	109.00 ms
TD	0.00 ms
MTC	Off
Magn. Preparation	Slice-sel. IR
TI	2930 ms
Freeze Suppr. Tissue	On
Flip Angle	180 deg
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Dark Blood	Off
Contrasts	1
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	230 mm
FoV Phase	75.0 %
Slice Thickness	1.0 mm
Base Resolution	256
Phase Resolution	75 %
Trajectory	Cartesian

Resolution - Common

Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Phase Partial Fourier	Off

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	122
Distance Factor	10 %
Position	L3.7 P17.4 F7.3 mm
Orientation	T > C-5.3 > S-3.0
Phase Encoding Dir.	R >> L
Phase Oversampling	0 %
FoV Read	230 mm
FoV Phase	75.0 %
Slice Thickness	1.0 mm
TR	15960.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	3

Geometry - AutoAlign

Slice Group	1
Position	L3.7 P17.4 F7.3 mm
Orientation	T > C-5.3 > S-3.0
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	Parallel F
Gap	5.00 mm
Thickness	40.00 mm

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Coil Memory
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	L3.7 P17.4 F7.3 mm
Orientation	T > C-5.3 > S-3.0
Rotation	85.75 deg
R >> L	173 mm
A >> P	230 mm
F >> H	135 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	15960.0 ms
Concatenations	3

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	Slice-sel. IR
TI	2930 ms
Dark Blood	Off
FoV Read	230 mm
FoV Phase	75.0 %
Phase Resolution	75 %
Trajectory	Cartesian
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	3

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Slice-sel. IR
Save Original Images	On

Inline - Cardiac

Contrasts	1
TE	109.00 ms
TR	15960.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	tir
Dimension	2D
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Bandwidth	199 Hz/Px
Echo Spacing	12.1 ms
Free Echo Spacing	Off
Define	Turbo Factor
Turbo Factor	21
Echo Trains per Slice	4

Sequence - Part 2

Introduction	On
Phase Correction	Automatic
Compensate T2 Decay	Off
Hyperecho	Off
WARP	Off
Red. EC Sensitivity	Off
Acoustic noise reduction	Off
Reduce Motion Sens.	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	60 s

\\User\Head\Coma\Coma Science Group\t2_space_FLAIR_sag_p3_iso_fast4 *
TA: 4:42 min Coil Selection: Manual Voxel Size: 1.0×1.0×1.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	176
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	92.2 %
Slice Thickness	1.00 mm
TR	5000.0 ms
TE	209.00 ms
Averages	1.0
Concatenations	1
AutoAlign	Head > Basis
Coil Elements	HE1-4

Contrast - Common

TR	5000.0 ms
TE	209.00 ms
MTC	Off
Magn. Preparation	Non-sel. IR
TI 1	1750 ms
Flip Angle Mode	T2 Var
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Dark Blood	Off
Blood Suppression	Off
Wrap-up Magn.	None
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement
Reordering	Linear

Resolution - Common

FoV Read	256 mm
FoV Phase	92.2 %
Slice Thickness	1.00 mm
Base Resolution	256
Phase Resolution	100 %
Slice Resolution	100 %

Resolution - Common

Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Total Factor	2
Reference Scans	Integrated
Acceleration Factor PE	2
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	Allowed
Slice Partial Fourier	6/8
Elliptical Scanning	On

Resolution - Filter

Raw Filter	On
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	176
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FoV Read	256 mm
FoV Phase	92.2 %
Slice Thickness	1.00 mm
TR	5000.0 ms
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Basis
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
F	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Sagittal
Rotation	0.00 deg
A >> P	236 mm
F >> H	256 mm
R >> L	176 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
Trigger Delay	0 ms
TR	5000.0 ms
Concatenations	1

Physio - Cardiac

Fat-Water Contrast	Fat Saturation
Magn. Preparation	Non-sel. IR
TI 1	1750 ms
Dark Blood	Off
FoV Read	256 mm
FoV Phase	92.2 %
Phase Resolution	100 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	Non-sel. IR
Save Original Images	On

Inline - Cardiac

TE	209.00 ms
TR	5000.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Composing

Inline Composing	Off

Sequence - Part 1

Sequence Name	spcir
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Flow Compensation	None
Reordering	Linear
Bandwidth	781 Hz/Px
Echo Spacing	3.42 ms
Turbo Factor	270
Echo Train Duration	667 ms

Sequence - Part 2

Introduction	On

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s

\\User\Head\Coma\Coma Science Group\ep2d_diff_mddw_30_p2_s3_b700 *
TA: 2:07 min Coil Selection: Manual Voxel Size: 2.0×2.0×2.0 mm³ Acc:: 6 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	66
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	3000.0 ms
TE	94.00 ms
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	3000.0 ms
TE	94.00 ms
MTC	Off
Magn. Preparation	None
Fat-Water Contrast	Fat Saturation
Fat Saturation	Strong
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Multiple Series	Off
Delay in TR	0.00 ms

Resolution - Common

FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
Base Resolution	128
Phase Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	SMS
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	30
SMS Factor	3
Phase Partial Fourier	6/8

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	Off
Normalize	Prescan

Geometry - Common

Slice Group	1
Slices	66
Distance Factor	30 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
Phase Oversampling	0 %
FoV Read	256 mm
FoV Phase	100.0 %
Slice Thickness	2.0 mm
TR	3000.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Navigator

Geometry - Saturation

Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Manual
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Performance

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto

System - Adjustments

Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	256 mm
R >> L	256 mm
F >> H	171 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3000.0 ms
Concatenations	1

Physio - PACE

Resp. Control	Off
Concatenations	1

Diff

Diffusion Mode	MDDW
Diff. Directions	30
Diffusion Scheme	Bipolar
Diff. Weightings	2
b-value 1	0 s/mm²
b-value 2	700 s/mm²
Averages 1	5
Averages 2	1
Dynamic Field Correction	Off
Invert Gray Scale	Off
Diff. Weighted Images	On
Trace Weighted Images	On
Tensor	On
FA Maps	On
ADC Maps	On
Exponential ADC Maps	Off
ADC Noise Threshold	30
Noise Masking	Off
Calculated Image	Off

Sequence - Part 1

Sequence Name	epse
Excitation	Standard
RF Pulse Type	Low SAR
Gradient Mode	Fast
Bandwidth	1562 Hz/Px
Echo Spacing	0.72 ms
Free Echo Spacing	Off
Optimization	None
EPI Factor	128

Sequence - Part 2

Introduction	On

Sequence - Part 2

Phase Correction	Internal

\\User\Head\Coma\Coma Science Group\t2_fl2d_cor_p2_hemo *
TA: 1:22 min Coil Selection: Auto Voxel Size: 0.8×0.8×4.0 mm³ Acc:: 2 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	On
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slice Group	1
Slices	38
Distance Factor	10 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	20 %
FoV Read	230 mm
FoV Phase	75.0 %
Slice Thickness	4.0 mm
TR	944.0 ms
TE	19.90 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE3,4;NE2

Contrast - Common

TR	944.0 ms
TE	19.90 ms
MTC	Off
Magn. Preparation	None
Flip Angle	20 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	Off
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	230 mm
FoV Phase	75.0 %
Slice Thickness	4.0 mm
Base Resolution	288
Phase Resolution	75 %
Interpolation	Off

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated

Resolution - Acceleration

Acceleration Factor PE	2
Reference Lines PE	24
Phase Partial Fourier	6/8
Asymmetric Echo	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	On
Distortion Correction	2D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slice Group	1
Slices	38
Distance Factor	10 %
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
Phase Oversampling	20 %
FoV Read	230 mm
FoV Phase	75.0 %
Slice Thickness	4.0 mm
TR	944.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice Group	1
Position	Isocenter
Orientation	Coronal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	L0.0 P0.0 F5.0
L	0.0 mm
P	0.0 mm
F	5.0 mm
Initial Orientation	Coronal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	5 mm
Table Position	F
Inline Composing	Off

System - Miscellaneous

Coil Selection	Default
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Tune up
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	944.0 ms
Segments	1
Concatenations	1

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	230 mm
FoV Phase	75.0 %
Phase Resolution	75 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	19.90 ms
TR	944.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off

Inline - MapIt

MapIt	None
Flip Angle	20 deg
Measurements	1
Contrasts	1
TE	19.90 ms
TR	944.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	fl_r
Dimension	2D
Excitation	Slice-sel.
RF Pulse Type	Fast
Gradient Mode	Fast
Flow Compensation	Slice/Read
Bandwidth	220 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	60 s

\\User\Head\Coma\Coma Science Group\t2_swi_tra_p3_ir_magpha_2mm *
TA: 3:57 min Coil Selection: Auto Voxel Size: 0.3×0.3×2.0 mm³ Acc:: 3 Rel. SNR: 1.00

Properties

Start measurement without further preparation	On
Wait for User to Start	Off
Start measurements	Single Measurement
Prio Recon	Off
Auto Open Inline Display	Off
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	Off
Graphic segment	Default
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	72
Phase Oversampling	0 %
Slice Oversampling	11.1 %
FoV Read	220 mm
FoV Phase	87.5 %
Slice Thickness	2.0 mm
TR	28.0 ms
TE	20.00 ms
Averages	1
Concatenations	1
AutoAlign	Head > Brain
Coil Elements	HE1-4

Contrast - Common

TR	28.0 ms
TE	20.00 ms
MTC	Off
Magn. Preparation	None
Flip Angle	15 deg
Fat-Water Contrast	Standard
Dark Blood	Off
Contrasts	1
SWI	On
Reconstruction	Magn./Phase

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Multiple Series	Each Measurement

Resolution - Common

FoV Read	220 mm
FoV Phase	87.5 %
Slice Thickness	2.0 mm
Base Resolution	384
Phase Resolution	80 %
Slice Resolution	100 %
Interpolation	On

Resolution - Acceleration

Acceleration mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off
Asymmetric Echo	Off
Elliptical Scanning	Off

Resolution - Filter

Raw Filter	Off
Elliptical Filter	Off
Distortion Correction	3D
Normalize	Prescan
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
Slices per Slab	72
Phase Oversampling	0 %
Slice Oversampling	11.1 %
FoV Read	220 mm
FoV Phase	87.5 %
Slice Thickness	2.0 mm
TR	28.0 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Transversal
Phase Encoding Dir.	R >> L
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	90.00 deg

Geometry - Saturation

Saturation Mode	Standard
Special Saturation	None

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	0 mm
Table Position	H
Inline Composing	Off

System - Miscellaneous

Coil Selection	Default

System - Miscellaneous

MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combination	Adaptive Combine
Matrix Optimization	Off

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Standard
B1 Shim	TrueForm
CoilShim	Off
Adjustment Tolerance	Auto
Adjust with Body Coil	Off
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
R >> L	193 mm
A >> P	220 mm
F >> H	144 mm
Reset	Off

System - Tx/Rx

Frequency 1H	123.217380 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	28.0 ms
Segments	1
Concatenations	1

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FoV Read	220 mm
FoV Phase	87.5 %
Phase Resolution	80 %
Dynamic Mode	Standard

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Liver

Liver Registration	Off
Save Original Images	On

Inline - Subtraction

Subtract	Off
Measurements	1
StdDev	Off
Save Original Images	On

Inline - Cardiac

Magn. Preparation	None
Save Original Images	On
Contrasts	1
TE	20.00 ms
TR	28.0 ms

Inline - MIP

MIP Sag	Off
MIP Cor	Off
MIP Tra	Off
MIP Time	Off
Radial MIP	Off
Save Original Images	On
MPR Sag	Off
MPR Cor	Off
MPR Tra	Off

Inline - Soft Tissue

Wash-in	Off
Wash-out	Off
TTP	Off
PEI	Off
MIP Time	Off
Measurements	1

Inline - Composing

Inline Composing	Off

Inline - MapIt

MapIt	None
Flip Angle	15 deg
Measurements	1
Contrasts	1
TE	20.00 ms
TR	28.0 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	swi_r
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	On
Bandwidth	120 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	On
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	30 s