Table of contents

\\USER
FMRIF
[XT-ID:93-M-0170]|Renzo
structural_templatedatase
t1_mp2rage_sag_p3_0.75mm
MPRAGE UP 0p75
T1234_AP
T1234_PA

\\USER\FMRIF\[XT-ID:93-M-0170]|Renzo\structural_templatedatase\t1_mp2rage_sag_p3_0.75mm

TA: 8:50 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 3 Rel. SNR: 1.00 : tfl

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Dist. factor	50 %
Position	R3.0 P0.0 F30.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	8.3 %
Slices per slab	192
FoV read	240 mm
FoV phase	93.8 %
Slice thickness	0.75 mm
TR	4300.0 ms
TE	2.27 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	AC

Contrast - Common

TR	4300.0 ms
TE	2.27 ms
Magn. preparation	Non-sel. IR
TI 1	1000 ms
TI 2	3200 ms
Flip angle 1	4.0 deg
Flip angle 2	4.0 deg
Fat suppr.	Water excit. fast
Water suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	240 mm
FoV phase	93.8 %
Slice thickness	0.75 mm
Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off

Resolution - Common

Slice partial Fourier	6/8
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	36
Accel. factor 3D	1
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Dist. factor	50 %
Position	R3.0 P0.0 F30.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	8.3 %
Slices per slab	192
FoV read	240 mm
FoV phase	93.8 %
Slice thickness	0.75 mm
TR	4300.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	R3.0 P0.0 F30.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R3.0 P0.0 F30.0
R	3.0 mm
P	0.0 mm
F	30.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Navigator

Geometry - Tim Planning Suite

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

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	R0.5 P15.5 H20.6 mm
! Orientation	Sagittal
! Rotation	13.88 deg
! A >> P	202 mm
! F >> H	109 mm
! R >> L	151 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Non-sel.

System - Tx/Rx

Frequency 1H	297.178818 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	220.000 V

Physio - Signal1

1st Signal/Mode	None
TR	4300.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	Non-sel. IR
TI 1	1000 ms
TI 2	3200 ms
Fat suppr.	Water excit. fast
Dark blood	Off
FoV read	240 mm
FoV phase	93.8 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off

Inline - Common

Measurements	1
StdDev	Off
Save original images	On

Inline - MIP

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

Inline - Composing

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	T1 map
Flip angle 1	4.0 deg
Flip angle 2	4.0 deg
Measurements	1
TR	4300.0 ms
TE	2.27 ms

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	7.2 ms
Bandwidth	200 Hz/Px

Sequence - Part 2

RF pulse type	Fast
Gradient mode	Fast*
Excitation	Non-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	156

Sequence - Assistant

Mode	Off

\\USER\FMRIF\[XT-ID:93-M-0170]|Renzo\structural_templatedatase\MPRAGE UP 0p75

TA: 7:17 PM: REF Voxel size: 0.8×0.8×0.8 mmPAT: 2 Rel. SNR: 1.00 : ns_tfl

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Dist. factor	50 %
Position	R3.0 P0.0 F30.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	256
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.75 mm
TR	2600.0 ms
TE	3.56 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	AC

Contrast - Common

TR	2600.0 ms
TE	3.56 ms
Magn. preparation	Non-sel. IR
TI	1220 ms
Flip angle	5.0 deg
Fat suppr.	None
Water suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.75 mm
Base resolution	340
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	7/8
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	40
Accel. factor 3D	1
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Dist. factor	50 %
Position	R3.0 P0.0 F30.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	256
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	0.75 mm
TR	2600.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	R3.0 P0.0 F30.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R3.0 P0.0 F30.0
R	3.0 mm
P	0.0 mm
F	30.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Navigator

Geometry - Tim Planning Suite

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

System - Miscellaneous

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T

System - Miscellaneous

Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	R0.5 P15.5 H20.6 mm
! Orientation	Sagittal
! Rotation	13.88 deg
! A >> P	202 mm
! F >> H	109 mm
! R >> L	151 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Non-sel.

System - Tx/Rx

Frequency 1H	297.178818 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	220.000 V

Physio - Signal1

1st Signal/Mode	None
TR	2600.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	Non-sel. IR
TI	1220 ms
Fat suppr.	None
Dark blood	Off
FoV read	256 mm
FoV phase	100.0 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

Inline - MIP

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

Inline - Composing

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle	5.0 deg
Measurements	1
TR	2600.0 ms
TE	3.56 ms

Sequence - Part 1

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Off
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	8.1 ms
Bandwidth	190 Hz/Px

Sequence - Part 2

Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	256

Sequence - pTX Pulses

Universal Pulse	1
Pulse type	Excitation
Trajectory	External

Sequence - Assistant

Mode	Off

\\USER\FMRIF\[XT-ID:93-M-0170]|Renzo\structural_templatedatase\T1234_AP

TA: 3:38 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 3 Rel. SNR: 1.00 : nih5l

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	L0.2 A4.8 F16.9 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Slices per slab	186
FoV read	190 mm
FoV phase	108.6 %
Slice thickness	0.82 mm
TR 1	28.5 ms
TR 2	52560 ms
TE 1	8.27 ms
Averages	1
Filter	None
Coil elements	AC

Contrast - Common

TR 1	28.5 ms
TR 2	52560 ms
TE 1	8.27 ms
Multi-echo spacing	19 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1093.5 ms
TI 2	2860.5 ms
Flip angle	10 deg
Fat suppr.	None
Magn. Prep. Shots	14

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	4
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s

Resolution - Common

FoV read	190 mm
FoV phase	108.6 %
Slice thickness	0.82 mm
Base resolution	232
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8

Resolution - Common

Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	1
Ref. lines PE	48
Acc. factor 3D	3
Ref. lines 3D	36
CAIPI 3D Shift	1
Reference Scan Mode	GRE/separate
CAIPI Mode (tooltip)	Skipped-CAIPI
Total PAT factor	3

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	L0.2 A4.8 F16.9 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slices per slab	186
FoV read	190 mm
FoV phase	108.6 %
Slice thickness	0.82 mm
TR 1	28.5 ms
TR 2	52560 ms

Geometry - AutoAlign

Slab group	1
Position	L0.2 A4.8 F16.9 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L0.2 A4.8 F16.9
L	0.2 mm
A	4.8 mm
F	16.9 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	None

Geometry - Tim Planning Suite

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

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	R9.8 P26.0 H8.6 mm
! Orientation	T > C-32.3
! Rotation	90.00 deg
! R >> L	195 mm
! A >> P	175 mm
! F >> H	61 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Non-sel.

System - Tx/Rx

Frequency 1H	297.178818 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	220.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Echo spacing	1.29 ms
Bandwidth	938 Hz/Px

Sequence - Part 2

EPI factor	14
Segmentation	14
RF pulse type	Normal
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Turbo factor	62

Sequence - Special

PATRef FA	3 deg
RF duration	340 us
Ernst T1	1200 ms

Sequence - Special

PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
ETL per RTEB	1
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	Off
SVDPC	On
Sym VASO	Off
Dual-pol. EPI	On
Invert RO	Off
Invert 3D	Off
Disable PF reco	Off
Disable PF reco	Off
Save sampling	Off
PE VComp	Off
Water Exc.	Binomial-11
External PC	per Series
FIDNavs	-none-
EPI rise time factor	1.10
Mosaic DICOMs	On
Modify Ice Config	On
G-factor map	Off
GRAPPA Regularization	50000 10^-6
HSN RF power scale	3.00
Inversion Delay	200 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	0

Sequence - Assistant

Mode	Off

\\USER\FMRIF\[XT-ID:93-M-0170]|Renzo\structural_templatedatase\T1234_PA

TA: 3:38 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 3 Rel. SNR: 1.00 : nih5l

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	L0.2 A4.8 F16.9 mm
Orientation	Sagittal
Phase enc. dir.	P >> A
AutoAlign	---
Slices per slab	186
FoV read	190 mm
FoV phase	108.6 %
Slice thickness	0.82 mm
TR 1	28.5 ms
TR 2	52560 ms
TE 1	8.27 ms
Averages	1
Filter	None
Coil elements	AC

Contrast - Common

TR 1	28.5 ms
TR 2	52560 ms
TE 1	8.27 ms
Multi-echo spacing	19 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1093.5 ms
TI 2	2860.5 ms
Flip angle	10 deg
Fat suppr.	None
Magn. Prep. Shots	14

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	4
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s

Resolution - Common

FoV read	190 mm
FoV phase	108.6 %
Slice thickness	0.82 mm
Base resolution	232
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8

Resolution - Common

Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	CAIPIRINHA
Acc. factor PE	1
Ref. lines PE	48
Acc. factor 3D	3
Ref. lines 3D	36
CAIPI 3D Shift	1
Reference Scan Mode	GRE/separate
CAIPI Mode (tooltip)	Skipped-CAIPI
Total PAT factor	3

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	L0.2 A4.8 F16.9 mm
Orientation	Sagittal
Phase enc. dir.	P >> A
Slices per slab	186
FoV read	190 mm
FoV phase	108.6 %
Slice thickness	0.82 mm
TR 1	28.5 ms
TR 2	52560 ms

Geometry - AutoAlign

Slab group	1
Position	L0.2 A4.8 F16.9 mm
Orientation	Sagittal
Phase enc. dir.	P >> A
AutoAlign	---
Initial Position	L0.2 A4.8 F16.9
L	0.2 mm
A	4.8 mm
F	16.9 mm
Initial Rotation	180.00 deg
Initial Orientation	Sagittal

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	None

Geometry - Tim Planning Suite

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

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	R9.8 P26.0 H8.6 mm
! Orientation	T > C-32.3
! Rotation	90.00 deg
! R >> L	195 mm
! A >> P	175 mm
! F >> H	61 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Non-sel.

System - Tx/Rx

Frequency 1H	297.178818 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	220.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Echo spacing	1.29 ms
Bandwidth	938 Hz/Px

Sequence - Part 2

EPI factor	14
Segmentation	14
RF pulse type	Normal
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On
Turbo factor	62

Sequence - Special

PATRef FA	3 deg
RF duration	340 us
Ernst T1	1200 ms

Sequence - Special

PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
ETL per RTEB	1
Invert PE	Off
Min. TE if PF	On
Echo Time Shift	On
Ramp Sampling	On
NORDIC	Off
SVDPC	On
Sym VASO	Off
Dual-pol. EPI	On
Invert RO	Off
Invert 3D	Off
Disable PF reco	Off
Disable PF reco	Off
Save sampling	Off
PE VComp	Off
Water Exc.	Binomial-11
External PC	per Series
FIDNavs	-none-
EPI rise time factor	1.10
Mosaic DICOMs	On
Modify Ice Config	On
G-factor map	Off
GRAPPA Regularization	50000 10^-6
HSN RF power scale	3.00
Inversion Delay	200 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	0

Sequence - Assistant

Mode	Off