

\\USER\FMRIF\XT-ID:93-M-0170]Renzo\20230519\_EMM\localizer\_ir\_tfl

TA: 1:28 PM: REF Voxel size: 1.0×1.0×2.0 mmPAT: Off 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

**Contrast - Dynamic**

Measurements	1
Multiple series	Each measurement

**Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

**Resolution - iPAT**

PAT mode	None
----------	------

**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

**Routine**

Slice group	1
Slices	6
Dist. factor	600 %
Position	L1.5 A5.0 F25.3 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	8
Dist. factor	250 %
Position	L1.5 A21.0 F30.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	6
Dist. factor	700 %
Position	L1.5 P10.0 F25.9 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	4300.0 ms
TE	3.46 ms
Averages	1
Concatenations	20
Filter	None
Coil elements	A32

**Geometry - Common**

Slice group	1
Slices	6
Dist. factor	600 %
Position	L1.5 A5.0 F25.3 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	8
Dist. factor	250 %
Position	L1.5 A21.0 F30.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	6
Dist. factor	700 %
Position	L1.5 P10.0 F25.9 mm
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	4300.0 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	20

**Contrast - Common**

TR	4300.0 ms
TE	3.46 ms
TD	0 ms
Magn. preparation	Slice-sel. IR
T1 1	840 ms
T1 2	2540 ms
Flip angle 1	5.0 deg
Flip angle 2	8.0 deg
Fat suppr.	None
Water suppr.	None

**Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude

**Geometry - AutoAlign**

Slice group	1
Position	L1.5 A5.0 F25.3 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	L1.5 A21.0 F30.0 mm

**Geometry - AutoAlign**

Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Position	L1.5 P10.0 F25.9 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L1.5 A5.0 F25.3
L	1.5 mm
A	5.0 mm
F	25.3 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
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	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

**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	297.204398 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	250.000 V

**Physio - Signal1**

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

**Physio - Signal1**

TR	4300.0 ms
Concatenations	20

**Physio - Cardiac**

Magn. preparation	Slice-sel. IR
TI 1	840 ms
TI 2	2540 ms
Fat suppr.	None
Dark blood	Off
FoV read	200 mm
FoV phase	100.0 %
Phase resolution	100 %

**Physio - PACE**

Resp. control	Off
Concatenations	20

**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 1	5.0 deg
Flip angle 2	8.0 deg
Measurements	1
TR	4300.0 ms
TE	3.46 ms

**Sequence - Part 1**

Introduction	On
Dimension	2D
Asymmetric echo	Off
Flow comp.	No
Multi-slice mode	Sequential
Echo spacing	6.7 ms
Bandwidth	240 Hz/Px

**Sequence - Part 2**

RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	192

**Sequence - Nuclei**

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz

**Sequence - Nuclei**

TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	A32

**Sequence - Assistant**

Mode	Off
------	-----

\\USER\FMRIF\[XT-ID:93-M-0170]Renzo\20230519\_EMM\rslh\_nih5i\_motor\_run1

TA: 8:10 PM: REF Voxel size: 0.8×0.8×0.8 mmPAT: 3 Rel. SNR: 1.00 : nih5i

**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	L0.0 A10.7 H40.7 mm
Orientation	T > C-15.7
Phase enc. dir.	A >> P
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	150 mm
FoV phase	100.0 %
Slice thickness	0.82 mm
TR 1	64.1 ms
TR 2	3300 ms
TE 1	24.80 ms
Averages	1
Filter	None
Coil elements	A32

**Contrast - Common**

TR 1	64.1 ms
TR 2	3300 ms
TE 1	24.80 ms
Multi-echo spacing	55.6 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1231.9 ms
TI 2	2385.7 ms
Flip angle	45 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	1

**Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	146
Pause after meas.	0.0 s

**Resolution - Common**

FoV read	150 mm
FoV phase	100.0 %
Slice thickness	0.82 mm
Base resolution	184
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off

**Resolution - Common**

Interpolation	Off
---------------	-----

**Resolution - iPAT**

PAT mode	CAIPIRINHA
Acc. factor PE	1
Ref. lines PE	80
Acc. factor 3D	3
Ref. lines 3D	18
CAIPI 3D Shift	1
Reference Scan Mode	EPI/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	L0.0 A10.7 H40.7 mm
Orientation	T > C-15.7
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	18
FoV read	150 mm
FoV phase	100.0 %
Slice thickness	0.82 mm
TR 1	64.1 ms
TR 2	3300 ms

**Geometry - AutoAlign**

Slab group	1
Position	L0.0 A10.7 H40.7 mm
Orientation	T > C-15.7
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L0.0 A10.7 H40.7
L	0.0 mm
A	10.7 mm
H	40.7 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-15.7
> S	0.0

**Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	Fat sat.

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H

**Geometry - Tim Planning Suite**

Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	REF
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	L0.0 A12.6 H41.2 mm
! Orientation	T > C-16.1
! Rotation	0.00 deg
! A >> P	154 mm
! R >> L	150 mm
! F >> H	23 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	297.204398 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

**Sequence - Part 1**

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Echo spacing	1.19 ms
Bandwidth	938 Hz/Px

**Sequence - Part 2**

EPI factor	46
Segmentation	3
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

**Sequence - Special**

PATRef FA	3 deg
RF duration	2040 us
RF BWT product	14

**Sequence - Special**

Ernst T1	1200 ms
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	On
SVDPC	On
Sym VASO	Off
Dual-pol. EPI	Off
Invert RO	Off
Invert 3D	Off
Disable PF reco	Off
Disable PF reco	Off
Save sampling	Off
PE VComp	Off
Water Exc.	-none-
External PC	-none-
Saturation RF	per Shot
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	645 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

**Sequence - Assistant**

Mode	Off
------	-----

\\USER\FMRIF\XT-ID:93-M-0170\Renzo\20230519\_EMM\rslh\_nih5i\_gfactor

TA: 8:10 PM: REF Voxel size: 0.8×0.8×0.8 mmPAT: 3 Rel. SNR: 1.00 : nih5i

**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	L0.0 A10.7 H40.7 mm
Orientation	T > C-15.7
Phase enc. dir.	A >> P
AutoAlign	---
Slab Scale	-10 %
Slices per slab	18
FoV read	150 mm
FoV phase	100.0 %
Slice thickness	0.82 mm
TR 1	64.1 ms
TR 2	3300 ms
TE 1	24.80 ms
Averages	1
Filter	None
Coil elements	A32

**Contrast - Common**

TR 1	64.1 ms
TR 2	3300 ms
TE 1	24.80 ms
Multi-echo spacing	55.6 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1231.9 ms
TI 2	2385.7 ms
Flip angle	45 deg
Fat suppr.	Fat sat.
Magn. Prep. Shots	1

**Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	146
Pause after meas.	0.0 s

**Resolution - Common**

FoV read	150 mm
FoV phase	100.0 %
Slice thickness	0.82 mm
Base resolution	184
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	Off

**Resolution - Common**

Interpolation	Off
---------------	-----

**Resolution - iPAT**

PAT mode	CAIPIRINHA
Acc. factor PE	1
Ref. lines PE	80
Acc. factor 3D	3
Ref. lines 3D	18
CAIPI 3D Shift	1
Reference Scan Mode	EPI/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	L0.0 A10.7 H40.7 mm
Orientation	T > C-15.7
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	18
FoV read	150 mm
FoV phase	100.0 %
Slice thickness	0.82 mm
TR 1	64.1 ms
TR 2	3300 ms

**Geometry - AutoAlign**

Slab group	1
Position	L0.0 A10.7 H40.7 mm
Orientation	T > C-15.7
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L0.0 A10.7 H40.7
L	0.0 mm
A	10.7 mm
H	40.7 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-15.7
> S	0.0

**Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	Fat sat.

**Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	H

**Geometry - Tim Planning Suite**

Table position	0 mm
Inline Composing	Off

**System - Miscellaneous**

Positioning mode	REF
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	L0.0 A12.6 H41.2 mm
! Orientation	T > C-16.1
! Rotation	0.00 deg
! A >> P	154 mm
! R >> L	150 mm
! F >> H	23 mm
Reset	Off

**System - Tx/Rx**

Frequency 1H	297.204398 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

**Sequence - Part 1**

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Echo spacing	1.19 ms
Bandwidth	938 Hz/Px

**Sequence - Part 2**

EPI factor	46
Segmentation	3
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	18

**Sequence - Special**

PATRef FA	3 deg
RF duration	2040 us
RF BWT product	14

**Sequence - Special**

Ernst T1	1200 ms
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	On
SVDPC	On
Sym VASO	Off
Dual-pol. EPI	Off
Invert RO	Off
Invert 3D	Off
Disable PF reco	Off
Disable PF reco	Off
Save sampling	Off
PE VComp	Off
Water Exc.	-none-
External PC	-none-
Saturation RF	per Shot
FIDNavs	-none-
EPI rise time factor	1.10
Mosaic DICOMs	On
Modify Ice Config	On
G-factor map	On
GRAPPA Regularization	50000 10^-6
HSN RF power scale	3.00
Inversion Delay	645 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	4

**Sequence - Assistant**

Mode	Off
------	-----