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TA: 0:14 PM: REF Voxel size: 0.5×0.5×7.0 mmPAT: Off Rel. SNR: 1.00 : fl

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	On
Load images to graphic segments	On
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

Slice group	1
Slices	1
Dist. factor	20 %
Position	L0.0 A30.6 F4.8 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	20 %
Position	L0.0 A20.6 F4.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	1
Dist. factor	20 %
Position	L0.0 A20.6 F4.8 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	7.0 mm
TR	8.6 ms
TE	4.00 ms
Averages	2
Concatenations	3
Filter	Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast - Common

TR	8.6 ms
TE	4.00 ms
TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Contrast - Dynamic

Averages	2
Averaging mode	Short term
Reconstruction	Magnitude

Contrast - Dynamic

Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	250 mm
FoV phase	100.0 %
Slice thickness	7.0 mm
Base resolution	256
Phase resolution	91 %
Phase partial Fourier	Off
Interpolation	On

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

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

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	On

Geometry - Common

Slice group	1
Slices	1
Dist. factor	20 %
Position	L0.0 A30.6 F4.8 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	20 %
Position	L0.0 A20.6 F4.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	1
Dist. factor	20 %
Position	L0.0 A20.6 F4.8 mm
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	7.0 mm
TR	8.6 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	3

Geometry - AutoAlign

Slice group	1
Position	L0.0 A30.6 F4.8 mm
Orientation	Sagittal
Phase enc. dir.	A >> P

Geometry - AutoAlign

Slice group	2
Position	L0.0 A20.6 F4.8 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Position	L0.0 A20.6 F4.8 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.0 A30.6 F4.8
L	0.0 mm
A	30.6 mm
F	4.8 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	None
Water suppr.	None
Special sat.	None

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	On - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	Off
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 - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slice-sel.

System - Tx/Rx

Frequency 1H	123.259389 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off

System - Tx/Rx

? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	8.6 ms
Concatenations	3
Segments	1

Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	250 mm
FoV phase	100.0 %
Phase resolution	91 %

Physio - PACE

Resp. control	Off
Concatenations	3

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save original images	On

Inline - MIP

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

Inline - Soft Tissue

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	1

Inline - Composing

Distortion Corr.	Off

Sequence - Part 1

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Flow comp.	No
Multi-slice mode	Sequential
Bandwidth	320 Hz/Px

Sequence - Part 2

Segments	1
Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

Sequence - Assistant

Mode	Off
Allowed delay	0 s

\\USER\OHBA User Archive\2018_123 C9orf72 Cohort Study\2018_123 C9orf72 Cohort Study\t1_mpr_ax_1mm_iso_withNose_32ch_v2

TA: 7:21 PM: REF Voxel size: 1.0×1.0×1.0 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	On
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L0.0 A22.3 F2.6 mm
Orientation	Transversal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	192
FoV read	256 mm
FoV phase	90.6 %
Slice thickness	1.00 mm
TR	1900.0 ms
TE	3.96 ms
Averages	1
Concatenations	1
Filter	Raw filter, Prescan Normalize
Coil elements	HEA;HEP

Contrast - Common

TR	1900.0 ms
TE	3.96 ms
Magn. preparation	Non-sel. IR
TI	912 ms
Flip angle	8 deg
Fat suppr.	Water excit. normal
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	90.6 %
Slice thickness	1.00 mm
Base resolution	256
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off

Resolution - Common

Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	On
Unfiltered images	On
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	On
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L0.0 A22.3 F2.6 mm
Orientation	Transversal
Phase enc. dir.	R >> L
Slice oversampling	0.0 %
Slices per slab	192
FoV read	256 mm
FoV phase	90.6 %
Slice thickness	1.00 mm
TR	1900.0 ms
Multi-slice mode	Single shot
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	L0.0 A22.3 F2.6 mm
Orientation	Transversal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.0 A22.3 F2.6
L	0.0 mm
A	22.3 mm
F	2.6 mm
Initial Rotation	90.00 deg
Initial Orientation	Transversal

Geometry - Navigator

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

System - Miscellaneous

Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Off - All

System - Adjustments

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

System - Adjust Volume

Position	L0.0 A22.3 F2.6 mm
Orientation	Transversal
Rotation	90.00 deg
R >> L	232 mm
A >> P	256 mm
F >> H	192 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	123.259389 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	1900.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	Non-sel. IR
TI	912 ms
Fat suppr.	Water excit. normal
Dark blood	Off
FoV read	256 mm
FoV phase	90.6 %
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

Inline - MIP

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

Inline - Composing

Distortion Corr.	Off

Sequence - Part 1

Introduction	Off
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	9.2 ms
Bandwidth	200 Hz/Px

Sequence - Part 2

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

Sequence - Assistant

Mode	Off

\\USER\OHBA User Archive\2018_123 C9orf72 Cohort Study\2018_123 C9orf72 Cohort Study\MB8_FMRI_fov210_2.4mm_resting

TA: 6:10 PM: REF Voxel size: 2.4×2.4×2.4 mmPAT: Off Rel. SNR: 1.00 : epfid

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

Slice group	1
Slices	64
Dist. factor	0 %
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.40 mm
TR	735 ms
TE	39.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HEA;HEP

Contrast - Common

TR	735 ms
TE	39.00 ms
MTC	Off
Magn. preparation	None
Flip angle	52 deg
Fat suppr.	Fat sat.

Contrast - Dynamic

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	490
Delay in TR	0 ms
Multiple series	Off

Resolution - Common

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.40 mm
Base resolution	88
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

Distortion Corr.	Off
Prescan Normalize	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry - Common

Slice group	1
Slices	64
Dist. factor	0 %
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.40 mm
TR	735 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

Geometry - AutoAlign

Slice group	1
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P2.1 H12.7
L	0.0 mm
P	2.1 mm
H	12.7 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-16.0
> S	0.0

Geometry - Saturation

Fat suppr.	Fat sat.
Special sat.	None

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
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - All

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off

System - Adjustments

Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Maximum

System - Adjust Volume

Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Rotation	0.00 deg
A >> P	210 mm
R >> L	210 mm
F >> H	154 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.259389 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	2.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	735 ms
Multi-band accel. factor	8

BOLD

GLM Statistics	Off
Dynamic t-maps	Off
Ignore meas. at start	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	3
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off
Measurements	490
Delay in TR	0 ms
Multiple series	Off

Sequence - Part 1

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.64 ms
Bandwidth	2030 Hz/Px

Sequence - Part 2

EPI factor	88
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

Sequence - Special

Excite pulse duration	7000 us
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	On
Invert RO/PE polarity	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

\\USER\OHBA User Archive\2018_123 C9orf72 Cohort Study\2018_123 C9orf72 Cohort Study\fieldmap_210FoV_2.4mm

TA: 1:47 PM: FIX Voxel size: 2.4×2.4×2.4 mmRel. SNR: 1.00 : fm_r

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

Slice group	1
Slices	64
Dist. factor	0 %
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.4 mm
TR	600.0 ms
TE 1	4.50 ms
TE 2	6.96 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast - Common

TR	600.0 ms
TE 1	4.50 ms
TE 2	6.96 ms
MTC	Off
Flip angle	46 deg
Fat suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution - Common

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.4 mm
Base resolution	88
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - Filter Image

Image Filter	Off

Resolution - Filter Image

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

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	64
Dist. factor	0 %
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.4 mm
TR	600.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice group	1
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P2.1 H12.7
L	0.0 mm
P	2.1 mm
H	12.7 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-16.0
> S	0.0

Geometry - Saturation

Fat suppr.	None
Special sat.	None

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	Head > Brain
Coil Select Mode	Off - All

System - Adjustments

B0 Shim mode	Standard

System - Adjustments

B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P2.1 H12.7 mm
! Orientation	T > C-16.0
! Rotation	0.00 deg
! A >> P	210 mm
! R >> L	210 mm
! F >> H	154 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm

System - Tx/Rx

Frequency 1H	123.259389 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Part 1

Introduction	Off
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Flow comp.	Yes
Multi-slice mode	Interleaved
Bandwidth	604 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

Sequence - Assistant

Mode	Off

\\USER\OHBA User Archive\2018_123 C9orf72 Cohort Study\2018_123 C9orf72 Cohort Study\uzay_csi_slaser_metab

TA: 0:43 PM: FIX Voxel size: 30.0×30.0×15.0 mmRel. SNR: 1.00 : csislsr

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

Position	L3.9 P9.3 H39.1 mm
Orientation	Transversal
Rotation	0 deg
Slices	1
Vol A >> P	35 mm
Vol R >> L	85 mm
FoV A >> P	240 mm
FoV R >> L	240 mm
Thickness F >> H	15 mm
TR	1300 ms
TE	40 ms
Averages	1
Filter	None
Coil elements	HEA;HEP

Contrast

TR	1300 ms
TE	40 ms
Averages	1
Averaging mode	Short term
Flip angle	90 deg
Water suppr.	Water sat.
Water suppr. BW	70 Hz
Measurements	1

Resolution - Common

FoV R >> L	240 mm
FoV A >> P	240 mm
Thickness F >> H	15 mm
Scan res. R >> L	8
Scan res. A >> P	8
Interpol. res. R >> L	8
Interpol. res. A >> P	8
Hamming	Off
Prescan Normalize	Off
Vector size	512

Geometry - Common

Position	L3.9 P9.3 H39.1 mm
Orientation	Transversal
Rotation	0 deg
FoV R >> L	240 mm
FoV A >> P	240 mm
Thickness F >> H	15 mm
Vol R >> L	85 mm

Geometry - Common

Vol A >> P	35 mm

Geometry - AutoAlign

Slice group	1
Position	L3.9 P9.3 H39.1 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L3.9 P9.3 H39.1
L	3.9 mm
P	9.3 mm
H	39.1 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

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
Save uncombined	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Adj. water suppr.	Off
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L3.9 P9.3 H39.1 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	40 mm
! R >> L	90 mm
! F >> H	20 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm

System - Tx/Rx

Frequency 1H	123.259389 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Common

Preparation scans	4
Dimension	2D
Delta frequency	-2.00 ppm
Phase encoding	Weighted
Bandwidth	1250 Hz
Acquisition duration	409 ms
Remove oversampling	On

\\USER\OHBA User Archive\2018_123 C9orf72 Cohort Study\2018_123 C9orf72 Cohort Study\slsr_csi_mcycle_dw_1

TA: 4:30 PM: FIX Voxel size: 60.0×60.0×15.0 mmRel. SNR: 1.00 : svs_sead

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	On
Wait for user to start	On
Start measurements	Single measurement

Routine

Position	L3.9 P9.3 H39.1 mm
Orientation	Transversal
Rotation	0 deg
Slices	1
Vol A >> P	35 mm
Vol R >> L	85 mm
FoV A >> P	240 mm
FoV R >> L	240 mm
Thickness F >> H	15 mm
TR	1400 ms
TE	32 ms
Averages	1
Filter	None
Coil elements	HEA;HEP

Contrast

TR	1400 ms
TE	32 ms
TM	10 ms
Averages	1
Flip angle 1	90 deg
Flip angle 2	180 deg
Water suppr.	Water sat.
Water suppr. BW	35 Hz
Spectral suppr.	Water suppr.
Water s. BW	70 ppm
Water s. delta pos.	0.00 ppm
Measurements	2

Resolution - Common

FoV R >> L	240 mm
FoV A >> P	240 mm
Thickness F >> H	15 mm
Scan res. R >> L	4
Scan res. A >> P	4
Interpol. res. R >> L	4
Interpol. res. A >> P	4
Prescan Normalize	Off
Vector size	4

Geometry - Common

Position	L3.9 P9.3 H39.1 mm
Orientation	Transversal
Rotation	0 deg
FoV R >> L	240 mm

Geometry - Common

FoV A >> P	240 mm
Thickness F >> H	15 mm
Vol R >> L	85 mm
Vol A >> P	35 mm

Geometry - AutoAlign

Slice group	1
Position	L3.9 P9.3 H39.1 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L3.9 P9.3 H39.1
L	3.9 mm
P	9.3 mm
H	39.1 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

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
Save uncombined	Off
Save single averages	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Adj. water suppr.	On
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L3.9 P9.3 H39.1 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	40 mm
! R >> L	90 mm
! F >> H	20 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm

System - Tx/Rx

Frequency 1H	123.259389 MHz
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Common

Preparation scans	1
Dimension	2D
Delta frequency	-2.0 ppm
Ref. scan mode	Off
Phase encoding	Full
Phase cycling	Auto
Bandwidth	40000 Hz
Acquisition duration	0 ms
Remove oversampling	On

Sequence - Special

Calibration Type	None
VAPOR flip angle	60 deg
90 pulse duration	2560 us
180 pulse duration	4500 us
Increment	0 deg
VAPOR	None
PointsperRing	32 us
rings	24 us
MinRadius	25 us
resolve averages	On

\\USER\OHBA User Archive\2018_123 C9orf72 Cohort Study\2018_123 C9orf72 Cohort Study\MB8_FMRI_fov210_2.4mm_task

TA: 6:10 PM: FIX Voxel size: 2.4×2.4×2.4 mmPAT: Off Rel. SNR: 1.00 : epfid

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	On
Start measurements	Single measurement

Routine

Slice group	1
Slices	64
Dist. factor	0 %
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.40 mm
TR	735 ms
TE	39.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HEA;HEP

Contrast - Common

TR	735 ms
TE	39.00 ms
MTC	Off
Magn. preparation	None
Flip angle	52 deg
Fat suppr.	Fat sat.

Contrast - Dynamic

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	490
Delay in TR	0 ms
Multiple series	Off

Resolution - Common

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.40 mm
Base resolution	88
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

Distortion Corr.	Off
Prescan Normalize	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry - Common

Slice group	1
Slices	64
Dist. factor	0 %
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.40 mm
TR	735 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

Geometry - AutoAlign

Slice group	1
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P2.1 H12.7
L	0.0 mm
P	2.1 mm
H	12.7 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-16.0
> S	0.0

Geometry - Saturation

Fat suppr.	Fat sat.
Special sat.	None

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
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - All

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off

System - Adjustments

Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Maximum

System - Adjust Volume

! Position	L0.0 P2.1 H12.7 mm
! Orientation	T > C-16.0
! Rotation	0.00 deg
! A >> P	210 mm
! R >> L	210 mm
! F >> H	154 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.259389 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	2.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	735 ms
Multi-band accel. factor	8

BOLD

GLM Statistics	Off
Dynamic t-maps	Off
Ignore meas. at start	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	3
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off
Measurements	490
Delay in TR	0 ms
Multiple series	Off

Sequence - Part 1

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.64 ms
Bandwidth	2030 Hz/Px

Sequence - Part 2

EPI factor	88
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

Sequence - Special

Excite pulse duration	7000 us
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	On
Invert RO/PE polarity	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

\\USER\OHBA User Archive\2018_123 C9orf72 Cohort Study\2018_123 C9orf72 Cohort Study\diff_PA_MPopt_MB3_3b0_lowflip

TA: 0:36 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off Rel. SNR: 1.00 : epse

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	On
Start measurements	Single measurement

Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	3600 ms
TE	92.00 ms
Multi-band accel. factor	3
Filter	None
Coil elements	HEA;HEP

Contrast - Common

TR	3600 ms
TE	92.00 ms
MTC	Off
Magn. preparation	None
Flip angle	78 deg
Refocus flip angle	160 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled

Contrast - Dynamic

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

Resolution - Common

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

Distortion Corr.	Off
Prescan Normalize	Off
Dynamic Field Corr.	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	3600 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	3

Geometry - AutoAlign

Slice group	1
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P2.1 H12.7
L	0.0 mm
P	2.1 mm
H	12.7 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-16.0
> S	0.0

Geometry - Saturation

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled
Special sat.	None

Geometry - Navigator

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
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - All

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Maximum

System - Adjust Volume

! Position	L0.0 P2.1 H12.7 mm
! Orientation	T > C-16.0
! Rotation	0.00 deg
! A >> P	210 mm
! R >> L	210 mm
! F >> H	154 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.259389 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	3600 ms
Multi-band accel. factor	3

Physio - PACE

Resp. control	Off
Multi-band accel. factor	3

Diff - Neuro

Diffusion mode	Free
Diff. directions	6
Diffusion Scheme	Monopolar
Diff. weightings	1
b-value	2000 s/mm²
b-value	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
FA maps	Off
Mosaic	Off
Tensor	Off
Noise level	40

Diff - Body

Diffusion mode	Free
Diff. directions	6
Diffusion Scheme	Monopolar
Diff. weightings	1
b-value	2000 s/mm²
b-value	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off

Diff - Body

Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm²
Noise level	40

Diff - Composing

Distortion Corr.	Off

Sequence - Part 1

Introduction	Off
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.67 ms
Bandwidth	1780 Hz/Px

Sequence - Part 2

EPI factor	104
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

Sequence - Special

Excite pulse duration	5120 us
Refocus pulse duration	10240 us
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	On
Invert RO/PE polarity	On
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off

\\USER\OHBA User Archive\2018_123 C9orf72 Cohort Study\2018_123 C9orf72 Cohort Study\diff_AP_MPopt_MB3_50b1000_50b2000_8b0_lowflip

TA: 6:32 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off Rel. SNR: 1.00 : epse

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

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	3600 ms
TE	92.00 ms
Multi-band accel. factor	3
Filter	None
Coil elements	HEA;HEP

Contrast - Common

TR	3600 ms
TE	92.00 ms
MTC	Off
Magn. preparation	None
Flip angle	78 deg
Refocus flip angle	160 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled

Contrast - Dynamic

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

Resolution - Common

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

Resolution - iPAT

PAT mode	None

Resolution - Filter Image

Distortion Corr.	Off
Prescan Normalize	Off
Dynamic Field Corr.	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	3600 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	3

Geometry - AutoAlign

Slice group	1
Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P2.1 H12.7
L	0.0 mm
P	2.1 mm
H	12.7 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-16.0
> S	0.0

Geometry - Saturation

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled
Special sat.	None

Geometry - Navigator

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
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - All

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Maximum

System - Adjust Volume

Position	L0.0 P2.1 H12.7 mm
Orientation	T > C-16.0
Rotation	0.00 deg
A >> P	210 mm
R >> L	210 mm
F >> H	144 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	123.259389 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	3600 ms
Multi-band accel. factor	3

Physio - PACE

Resp. control	Off
Multi-band accel. factor	3

Diff - Neuro

Diffusion mode	Free
Diff. directions	104
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm²
b-value 2	2000 s/mm²
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
FA maps	Off
Mosaic	On
Tensor	Off
Noise level	40

Diff - Body

Diffusion mode	Free
Diff. directions	104
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm²
b-value 2	2000 s/mm²
b-value 1	1

Diff - Body

b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm²
Noise level	40

Diff - Composing

Distortion Corr.	Off

Sequence - Part 1

Introduction	Off
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.67 ms
Bandwidth	1780 Hz/Px

Sequence - Part 2

EPI factor	104
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

Sequence - Special

Excite pulse duration	5120 us
Refocus pulse duration	10240 us
Single-band images	On
MB LeakBlock kernel	Off
MB dual kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	On
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off

\\USER\OHBA User Archive\2018_123 C9orf72 Cohort Study\2018_123 C9orf72 Cohort Study\mfc_3d flash_T1w_GRAPPA4_11mm

TA: 3:38 PM: FIX Voxel size: 1.1×1.1×1.1 mmPAT: 4 Rel. SNR: 1.00 : fl3d_1i

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	On
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	R1.3 P2.0 H2.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Slice oversampling	0.0 %
Slices per slab	160
FoV read	230 mm
FoV phase	87.5 %
Slice thickness	1.10 mm
TR	25.00 ms
TE 1	2.30 ms
TE 2	4.50 ms
TE 3	6.70 ms
TE 4	8.90 ms
TE 5	11.10 ms
TE 6	13.30 ms
TE 7	15.50 ms
TE 8	17.70 ms
TE 9	19.90 ms
TE 10	0.00 ms
TE 11	0.00 ms
TE 12	0.00 ms
TE 13	0.00 ms
TE 14	0.00 ms
TE 15	0.00 ms
TE 16	0.00 ms
TE 17	0.00 ms
TE 18	0.00 ms
TE 19	0.00 ms
TE 20	0.00 ms
TE 21	0.00 ms
TE 22	0.00 ms
TE 23	0.00 ms
TE 24	0.00 ms
TE 25	0.00 ms
TE 26	0.00 ms
TE 27	0.00 ms
TE 28	0.00 ms
TE 29	0.00 ms
TE 30	0.00 ms
TE 31	0.00 ms
TE 32	0.00 ms
Concatenations	1
Filter	None

Routine

Coil elements	HEA;HEP

Contrast - Common

TR	25.00 ms
TE 1	2.30 ms
TE 2	4.50 ms
TE 3	6.70 ms
TE 4	8.90 ms
TE 5	11.10 ms
TE 6	13.30 ms
TE 7	15.50 ms
TE 8	17.70 ms
TE 9	19.90 ms
TE 10	0.00 ms
TE 11	0.00 ms
TE 12	0.00 ms
TE 13	0.00 ms
TE 14	0.00 ms
TE 15	0.00 ms
TE 16	0.00 ms
TE 17	0.00 ms
TE 18	0.00 ms
TE 19	0.00 ms
TE 20	0.00 ms
TE 21	0.00 ms
TE 22	0.00 ms
TE 23	0.00 ms
TE 24	0.00 ms
TE 25	0.00 ms
TE 26	0.00 ms
TE 27	0.00 ms
TE 28	0.00 ms
TE 29	0.00 ms
TE 30	0.00 ms
TE 31	0.00 ms
TE 32	0.00 ms
MTC	Off
Flip angle	21 deg

Contrast - Dynamic

Reconstruction	Magnitude

Resolution - Common

FoV read	230 mm
FoV phase	87.5 %
Slice thickness	1.10 mm
Base resolution	208
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	40
Accel. factor 3D	2
Ref. lines 3D	40
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
Position	R1.3 P2.0 H2.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	160
FoV read	230 mm
FoV phase	87.5 %
Slice thickness	1.10 mm
TR	25.00 ms
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	R1.3 P2.0 H2.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R1.3 P2.0 H2.2
R	1.3 mm
P	2.0 mm
H	2.2 mm
Initial Rotation	30.00 deg
Initial Orientation	Sagittal

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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P3.0 H5.0 mm
! Orientation	Sagittal
! Rotation	120.00 deg

System - Adjust Volume

! F >> H	150 mm
! A >> P	200 mm
! R >> L	150 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm

System - Tx/Rx

Frequency 1H	123.259389 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Part 1

Dimension	3D
Elliptical scanning	Off
Contrasts	9
Bandwidth	511 Hz/Px

Sequence - Part 2

Gradient mode	Performance
RF spoiling	On

Sequence - Special

Noise Adjust	On
RF Spoiling Increment	137.0 Degrees
Trajectory	Partitions in Lines
Prewinder (PE, RO) Ramp.	200 us
Prewinder (PE, RO) Dur.	610 us
Readout Ramp	110 us
RF Pulse Duration	560 us
Excitation	Non-Selective
Reconstruction	ICE
Bandwidth Time Product	6.0

Sequence - Assistant

Mode	Off

\\USER\OHBA User Archive\2018_123 C9orf72 Cohort Study\2018_123 C9orf72 Cohort Study\mfc_3d flash_PDw_GRAPPA4_11mm

TA: 3:38 PM: FIX Voxel size: 1.1×1.1×1.1 mmPAT: 4 Rel. SNR: 1.00 : fl3d_1i

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	R1.3 P2.0 H2.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Slice oversampling	0.0 %
Slices per slab	160
FoV read	230 mm
FoV phase	87.5 %
Slice thickness	1.10 mm
TR	25.00 ms
TE 1	2.30 ms
TE 2	4.50 ms
TE 3	6.70 ms
TE 4	8.90 ms
TE 5	11.10 ms
TE 6	13.30 ms
TE 7	15.50 ms
TE 8	17.70 ms
TE 9	19.90 ms
TE 10	0.00 ms
TE 11	0.00 ms
TE 12	0.00 ms
TE 13	0.00 ms
TE 14	0.00 ms
TE 15	0.00 ms
TE 16	0.00 ms
TE 17	0.00 ms
TE 18	0.00 ms
TE 19	0.00 ms
TE 20	0.00 ms
TE 21	0.00 ms
TE 22	0.00 ms
TE 23	0.00 ms
TE 24	0.00 ms
TE 25	0.00 ms
TE 26	0.00 ms
TE 27	0.00 ms
TE 28	0.00 ms
TE 29	0.00 ms
TE 30	0.00 ms
TE 31	0.00 ms
TE 32	0.00 ms
Concatenations	1
Filter	None

Routine

Coil elements	HEA;HEP

Contrast - Common

TR	25.00 ms
TE 1	2.30 ms
TE 2	4.50 ms
TE 3	6.70 ms
TE 4	8.90 ms
TE 5	11.10 ms
TE 6	13.30 ms
TE 7	15.50 ms
TE 8	17.70 ms
TE 9	19.90 ms
TE 10	0.00 ms
TE 11	0.00 ms
TE 12	0.00 ms
TE 13	0.00 ms
TE 14	0.00 ms
TE 15	0.00 ms
TE 16	0.00 ms
TE 17	0.00 ms
TE 18	0.00 ms
TE 19	0.00 ms
TE 20	0.00 ms
TE 21	0.00 ms
TE 22	0.00 ms
TE 23	0.00 ms
TE 24	0.00 ms
TE 25	0.00 ms
TE 26	0.00 ms
TE 27	0.00 ms
TE 28	0.00 ms
TE 29	0.00 ms
TE 30	0.00 ms
TE 31	0.00 ms
TE 32	0.00 ms
MTC	Off
Flip angle	6 deg

Contrast - Dynamic

Reconstruction	Magnitude

Resolution - Common

FoV read	230 mm
FoV phase	87.5 %
Slice thickness	1.10 mm
Base resolution	208
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	40
Accel. factor 3D	2
Ref. lines 3D	40
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
Position	R1.3 P2.0 H2.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	160
FoV read	230 mm
FoV phase	87.5 %
Slice thickness	1.10 mm
TR	25.00 ms
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	R1.3 P2.0 H2.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R1.3 P2.0 H2.2
R	1.3 mm
P	2.0 mm
H	2.2 mm
Initial Rotation	30.00 deg
Initial Orientation	Sagittal

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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P3.0 H5.0 mm
! Orientation	Sagittal
! Rotation	120.00 deg

System - Adjust Volume

! F >> H	150 mm
! A >> P	200 mm
! R >> L	150 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm

System - Tx/Rx

Frequency 1H	123.259389 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Part 1

Dimension	3D
Elliptical scanning	Off
Contrasts	9
Bandwidth	511 Hz/Px

Sequence - Part 2

Gradient mode	Performance
RF spoiling	On

Sequence - Special

Noise Adjust	On
RF Spoiling Increment	137.0 Degrees
Trajectory	Partitions in Lines
Prewinder (PE, RO) Ramp.	220 us
Prewinder (PE, RO) Dur.	610 us
Readout Ramp	110 us
RF Pulse Duration	160 us
Excitation	Non-Selective
Reconstruction	ICE
Bandwidth Time Product	6.0

Sequence - Assistant

Mode	Off

\\USER\OHBA User Archive\2018_123 C9orf72 Cohort Study\2018_123 C9orf72 Cohort Study\rf_map

TA: 2:14 PM: FIX Voxel size: 4.0×4.0×5.0 mmRel. SNR: 1.00 :

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	On
Start measurements	Single measurement

Routine

Slice group	1
Slices	18
Dist. factor	150 %
Position	R1.3 P2.0 H2.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	5 mm
TR	2000 ms
TE 1	14 ms
TE 2	14 ms
Averages	1
Filter	None
Coil elements	HEA;HEP

Contrast - Common

TR	2000 ms
TE 1	14 ms
TE 2	14 ms
Flip angle 1	90 deg
Flip angle 2	120 deg
Flip angle 3	60 deg
Flip angle 4	135 deg
Flip angle 5	45 deg

Contrast - Dynamic

Averages	1
Measurements	1

Resolution - Common

FoV read	256 mm
FoV phase	100.0 %
Slice thickness	5 mm
Base resolution	64
Phase resolution	100 %

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

Slice group	1
Slices	18
Dist. factor	150 %
Position	R1.3 P2.0 H2.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	5 mm
TR	2000 ms
Series	Interleaved

Geometry - AutoAlign

Slice group	1
Position	R1.3 P2.0 H2.2 mm
Orientation	Transversal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R1.3 P2.0 H2.2
R	1.3 mm
P	2.0 mm
H	2.2 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

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	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	Off
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 - pTx Volumes

B1 Shim mode	TrueForm

System - Tx/Rx

Frequency 1H	123.259435 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Part 1

Contrasts	2
Bandwidth	260.416667 Hz/Px

Sequence - Special

T1 Compensation	0.0 ms
Angles	1
BC Excitation Mode	Auto

Sequence - Assistant

Mode	Off

\\USER\OHBA User Archive\2018_123 C9orf72 Cohort Study\2018_123 C9orf72 Cohort Study\mfc_3d flash_MTw_GRAPPA4_11mm

TA: 3:38 PM: FIX Voxel size: 1.1×1.1×1.1 mmPAT: 4 Rel. SNR: 1.00 : fl3d_1i

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	R1.3 P2.0 H2.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Slice oversampling	0.0 %
Slices per slab	160
FoV read	230 mm
FoV phase	87.5 %
Slice thickness	1.10 mm
TR	25.00 ms
TE 1	2.30 ms
TE 2	4.50 ms
TE 3	6.70 ms
TE 4	8.90 ms
TE 5	11.10 ms
TE 6	13.30 ms
TE 7	15.50 ms
TE 8	0.00 ms
TE 9	0.00 ms
TE 10	0.00 ms
TE 11	0.00 ms
TE 12	0.00 ms
TE 13	0.00 ms
TE 14	0.00 ms
TE 15	0.00 ms
TE 16	0.00 ms
TE 17	0.00 ms
TE 18	0.00 ms
TE 19	0.00 ms
TE 20	0.00 ms
TE 21	0.00 ms
TE 22	0.00 ms
TE 23	0.00 ms
TE 24	0.00 ms
TE 25	0.00 ms
TE 26	0.00 ms
TE 27	0.00 ms
TE 28	0.00 ms
TE 29	0.00 ms
TE 30	0.00 ms
TE 31	0.00 ms
TE 32	0.00 ms
Concatenations	1
Filter	None

Routine

Coil elements	HEA;HEP

Contrast - Common

TR	25.00 ms
TE 1	2.30 ms
TE 2	4.50 ms
TE 3	6.70 ms
TE 4	8.90 ms
TE 5	11.10 ms
TE 6	13.30 ms
TE 7	15.50 ms
TE 8	0.00 ms
TE 9	0.00 ms
TE 10	0.00 ms
TE 11	0.00 ms
TE 12	0.00 ms
TE 13	0.00 ms
TE 14	0.00 ms
TE 15	0.00 ms
TE 16	0.00 ms
TE 17	0.00 ms
TE 18	0.00 ms
TE 19	0.00 ms
TE 20	0.00 ms
TE 21	0.00 ms
TE 22	0.00 ms
TE 23	0.00 ms
TE 24	0.00 ms
TE 25	0.00 ms
TE 26	0.00 ms
TE 27	0.00 ms
TE 28	0.00 ms
TE 29	0.00 ms
TE 30	0.00 ms
TE 31	0.00 ms
TE 32	0.00 ms
MTC	On
Flip angle	6 deg

Contrast - Dynamic

Reconstruction	Magnitude

Resolution - Common

FoV read	230 mm
FoV phase	87.5 %
Slice thickness	1.10 mm
Base resolution	208
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	40
Accel. factor 3D	2
Ref. lines 3D	40
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
Position	R1.3 P2.0 H2.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	160
FoV read	230 mm
FoV phase	87.5 %
Slice thickness	1.10 mm
TR	25.00 ms
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	R1.3 P2.0 H2.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R1.3 P2.0 H2.2
R	1.3 mm
P	2.0 mm
H	2.2 mm
Initial Rotation	30.00 deg
Initial Orientation	Sagittal

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
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.0 P3.0 H5.0 mm
! Orientation	Sagittal
! Rotation	120.00 deg

System - Adjust Volume

! F >> H	150 mm
! A >> P	200 mm
! R >> L	150 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm

System - Tx/Rx

Frequency 1H	123.259435 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Part 1

Dimension	3D
Elliptical scanning	Off
Contrasts	7
Bandwidth	511 Hz/Px

Sequence - Part 2

Gradient mode	Performance
RF spoiling	On

Sequence - Special

Noise Adjust	On
RF Spoiling Increment	137.0 Degrees
Trajectory	Partitions in Lines
Prewinder (PE, RO) Ramp.	220 us
Prewinder (PE, RO) Dur.	610 us
Readout Ramp	110 us
RF Pulse Duration	160 us
Excitation	Non-Selective
Reconstruction	ICE
Bandwidth Time Product	6.0

Sequence - Assistant

Mode	Off