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\\MARTINOS DEVELOPER\HUBER\3rd_order_shim_tests_with_Gunjan\Kaisu_20250725\scout_axial

TA: 17 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
Disable auto transfer to PACS	Off
Load Images to Stamp Segments	Off
Load Images to Graphic Segments	On
Graphic segment	3rd Segment
Inline Movie	Off

Routine

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	L0.0 A16.0 H0.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	160
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FOV Read	260 mm
FOV Phase	100.0 %
Slice Thickness	1.600 mm
TR	3.6 ms
TE	1.56 ms
Averages	1
Concatenations	1
AutoAlign	---
Coil Elements	AC

Contrast - Common

TR	3.6 ms
TE	1.56 ms
MTC	Off
Magn. Preparation	None
Flip Angle	15 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	260 mm
FOV Phase	100.0 %
Slice Thickness	1.600 mm
Base Resolution	160
Phase Resolution	100 %
Slice Resolution	69 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	GRAPPA
Reference Scans	Integrated
Acceleration Factor PE	3
Reference Lines PE	24
Acceleration Factor 3D	1
Phase Partial Fourier	6/8
Slice Partial Fourier	6/8
Asymmetric Echo	Off
Elliptical Scanning	Off

Resolution - Filter

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

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	L0.0 A16.0 H0.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	160
Phase Oversampling	0 %
Slice Oversampling	0.0 %
FOV Read	260 mm
FOV Phase	100.0 %
Slice Thickness	1.600 mm
TR	3.6 ms
Multi-Slice Mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L0.0 A16.0 H0.0 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---

Geometry - AutoAlign

Initial Position	L0.0 A16.0 H0.0
L	0.0 mm
A	16.0 mm
H	0.0 mm
Initial Orientation	Transversal
Initial Rotation	0.00 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

System - Miscellaneous

Coil Selection	Manual
Radial Sorting	Off
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
Adjustment Tolerance	Auto
Confirm Frequency	Never
Assume Silicone	Off

System - Adjust Volume

! Position	L0.0 A36.7 F31.6 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	263 mm
! R >> L	350 mm
! F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Non-sel.

System - Tx/Rx

Frequency 1H	297.118707 MHz
! Ref. Amplitude 1H	250.000 V
Reset	Off
Correction Factor	1.00
Image Scaling	1.000

Physio - Signal

1st Signal/Mode	None
TR	3.6 ms
Segments	1
Concatenations	1

Physio - Cardiac

Tagging	None
Fat-Water Contrast	Standard
Magn. Preparation	None
Dark Blood	Off
FOV Read	260 mm
FOV Phase	100.0 %
Phase Resolution	100 %

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 - 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 - MapIt

MapIt	None
Flip Angle	15 deg
Measurements	1
Contrasts	1

Inline - MapIt

TE	1.56 ms
TR	3.6 ms
Save Original Images	On

Sequence - Part 1

Sequence Name	fl
Dimension	3D
Excitation	Non-sel.
RF Pulse Type	Fast
Gradient Mode	Normal
Flow Compensation	None
Bandwidth	540 Hz/Px
Asymmetric Echo	Off
Segments	1

Sequence - Part 2

Introduction	Off
RF Spoiling	On
Acoustic noise reduction	Off

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX Delta Frequency	0 Hz
TX Nucleus	None
TX Delta Frequency	0 Hz
Coil Elements	AC

Sequence - Special

Readout polarity	Positive
Image processing	Standard
Apply echo spacing	Off
Echo spacing	0 us
Delta echo spacing	0 us
Dummy scans	0 ms
RF pulse duration	100 us
Gradient spoiling	Siemens
Gradient moment factor	1.00
Receiver gain mode	Siemens
Number of segments	1
Current segment	0
Lines before/after seg	0

Sequence - Assistant

SAR Assistant	Off
Allowed Delay	0 s

\\MARTINOS DEVELOPER\HUBER\3rd_order_shim_tests_with_Gunjan\Kaisu_20250725\scout_sag

TA: 14 sec Coil Selection: Auto 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	On
Auto Close Inline Display	Off
Load Images to MR View&GO	On
Auto Store Images	On
Disable auto transfer to PACS	Off
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	L0.0 A16.0 H0.0 mm
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	3.25 ms
TE	1.53 ms
Averages	1
Concatenations	1
AutoAlign	Head

Contrast - Common

TR	3.25 ms
TE	1.53 ms
Flip Angle	16 deg
Fat-Water Contrast	Standard
Contrasts	1
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1
Time to Center	6.3 s

Resolution - Common

FOV Read	260 mm
FOV Phase	100.0 %

Resolution - Common

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
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	B1 Filter
Image Filter	Off

Geometry - Common

Slab Group	1
Slabs	1
Distance Factor	20 %
Position	L0.0 A16.0 H0.0 mm
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	3.25 ms
Multi-Slice Mode	Sequential
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab Group	1
Position	L0.0 A16.0 H0.0 mm
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	Head
Initial Position	L0.0 A16.0 H0.0
L	0.0 mm
A	16.0 mm

Geometry - AutoAlign

H	0.0 mm
Initial Orientation	Sagittal
Initial Rotation	0.00 deg

Geometry - Tim Planning Suite

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

System - Miscellaneous

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

System - Adjustments

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

System - Adjust Volume

! Position	L0.0 A36.7 F31.6 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	263 mm
! R >> L	350 mm
! F >> H	350 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Non-sel.

System - Tx/Rx

Frequency 1H	297.118707 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Physio - PACE

Resp. Control	Off
Concatenations	1

Inline - Subtraction

Subtract	Off

Inline - Subtraction

Measurements	1
StdDev	Off
Save Original Images	On

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 - MapIt

MapIt	None
Flip Angle	16 deg
Measurements	1
Contrasts	1
TE	1.53 ms
TR	3.25 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
Breast Application	Off
Phase Enc. Order	Automatic

Sequence - Assistant

SAR Assistant	Off

\\MARTINOS DEVELOPER\HUBER\3rd_order_shim_tests_with_Gunjan\Kaisu_20250725\setter

TA: 8 sec Coil Selection: Auto Voxel Size: 2.5×2.5×2.5 mm³ Acc:: None 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
Disable auto transfer to PACS	Off
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	48
Slice Oversampling	0.0 %
FOV Read	210 mm
FOV Phase	100.0 %
Slice Thickness	2.50 mm
TR	130.0 ms
Vol. TR	6240.0 ms
Min. TR	6240.0 ms
Pause	0.0 ms
TE 1	48.00 ms
Averages	1
Multi-echo Shots	1
AutoAlign	---

Contrast - Common

TR	130.0 ms
Vol. TR	6240.0 ms
Min. TR	6240.0 ms
Pause	0.0 ms
TE 1	48.00 ms
Multi-echo spacing	86.20 ms
MTC	Off
Flip Angle	15 deg
Fat-Water Contrast	Standard
Contrasts	1
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	1

Contrast - Dynamic

Reordering	Linear

Resolution - Common

FOV Read	210 mm
FOV Phase	100.0 %
Slice Thickness	2.50 mm
Base Resolution	84
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	None
Phase Partial Fourier	Off
Slice Partial Fourier	Off

Resolution - Filter

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

Geometry - Common

Slab Group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
Slices per Slab	48
Slice Oversampling	0.0 %
FOV Read	210 mm
FOV Phase	100.0 %
Slice Thickness	2.50 mm
TR	130.0 ms
Vol. TR	6240.0 ms
Min. TR	6240.0 ms
Pause	0.0 ms
Multi-echo Shots	1

Geometry - AutoAlign

Slab Group	1
Position	Isocenter
Orientation	Sagittal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm

Geometry - AutoAlign

Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard

Geometry - Tim Planning Suite

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

System - Miscellaneous

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

System - Adjustments

Adjustment Strategy	Standard
B0 Shim	Brain
B1 Shim	TrueForm
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	210 mm
F >> H	210 mm
R >> L	120 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Non-sel.

System - Tx/Rx

Frequency 1H	297.118707 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Sequence - Part 1

Sequence Name	ep
Dimension	3D
Excitation	Non-sel.

Sequence - Part 1

RF Pulse Type	Normal
Gradient Mode	Fast
Reordering	Linear
Bandwidth	1044 Hz/Px
Echo Spacing	1.02 ms
Segmentation	1
EPI Factor	84

Sequence - Part 2

Introduction	On
RF Spoiling	On

Sequence - Special

RF duration	1000 us
Ernst T1	1200 ms
NORDIC	-1
Relax enc/spoilers	1
ETL per RTEB	1
CHECK FLIP ANGLE!	On
Invert PE	Off
FRISGO	Off
Ramp Sampling	On
Ext. trigger/shot	Off
Interactive Realtime	On
Echo Time Shift	On
TE fill before PE	Off
Save sampling	Off
Water Exc.	-none-
Phase Correction	per Series
EPI rise time factor	1.10
FIDNavs	-none-
RF spoil scheme	Conventional
Reorder scramble freq.	-1.00 Hz

Sequence - Assistant

SAR Assistant	Off

\\MARTINOS DEVELOPER\HUBER\3rd_order_shim_tests_with_Gunjan\Kaisu_20250725\dzne_ep3d_reference_as_inbay5_almost

TA: 1:08 min Coil Selection: Auto 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
Disable auto transfer to PACS	Off
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	R1.9 P2.5 H6.8 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Slice Oversampling	18.2 %
FOV Read	192 mm
FOV Phase	100.0 %
Slice Thickness	1.00 mm
TR	57.8 ms
Vol. TR	3005.6 ms
TE 1	29.70 ms
Averages	1
Multi-echo Shots	1
AutoAlign	---

Contrast - Common

TR	57.8 ms
Vol. TR	3005.6 ms
TE 1	29.70 ms
Multi-echo spacing	49.50 ms
MTC	Off
Flip Angle	14 deg
Fat-Water Contrast	Standard
Contrasts	1
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	20
Pause after Meas. 1	0.0 s
Pause after Meas. 2	0.0 s

Contrast - Dynamic

Pause after Meas. 3	0.0 s
Pause after Meas. 4	0.0 s
Pause after Meas. 5	0.0 s
Pause after Meas. 6	0.0 s
Pause after Meas. 7	0.0 s
Pause after Meas. 8	0.0 s
Pause after Meas. 9	0.0 s
Pause after Meas. 10	0.0 s
Pause after Meas. 11	0.0 s
Pause after Meas. 12	0.0 s
Pause after Meas. 13	0.0 s
Pause after Meas. 14	0.0 s
Pause after Meas. 15	0.0 s
Pause after Meas. 16	0.0 s
Pause after Meas. 17	0.0 s
Pause after Meas. 18	0.0 s
Pause after Meas. 19	0.0 s
Reordering	Linear

Resolution - Common

FOV Read	192 mm
FOV Phase	100.0 %
Slice Thickness	1.00 mm
Base Resolution	192
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CAIPIRINHA
CAIPIRINHA Mode	Free
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	48
Acceleration Factor 3D	2
Reference Lines 3D	24
Reordering Shift 3D	1
Phase Partial Fourier	Off
Slice Partial Fourier	Off

Resolution - Filter

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

Geometry - Common

Slab Group	1

Geometry - Common

Slabs	1
Position	R1.9 P2.5 H6.8 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Slice Oversampling	18.2 %
FOV Read	192 mm
FOV Phase	100.0 %
Slice Thickness	1.00 mm
TR	57.8 ms
Vol. TR	3005.6 ms
Multi-echo Shots	1

Geometry - AutoAlign

Slab Group	1
Position	R1.9 P2.5 H6.8 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	R1.9 P2.5 H6.8
R	1.9 mm
P	2.5 mm
H	6.8 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard

Geometry - Tim Planning Suite

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

System - Miscellaneous

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

System - Adjustments

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

System - Adjust Volume

! Position	R1.9 P0.0 H6.2 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	150 mm
! R >> L	175 mm
! F >> H	49 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.118707 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Sequence - Part 1

Sequence Name	ep 256d7d0
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Reordering	Linear
Bandwidth	1132 Hz/Px
Echo Spacing	1.01 ms
Segmentation	2
EPI Factor	48

Sequence - Part 2

Introduction	On
RF Spoiling	On

Sequence - Special

PAT ref. FA	5 deg
RF duration	4000 us
RF BWT product	25
Ernst T1	1200 ms
PATRef prep. shots	100
Volume dummy shots	0
Noise dummy shots	-1
CHECK FLIP ANGLE!	On
Integrated PC	Off
Invert PE	Off
Dual-polarity	Off
Ramp Sampling	On
Ext. trigger/shot	Off
Water Exc.	-none-
Phase Correction	per Series
EPI rise time factor	1.03
G. spoil dephasing[1]	0.0 pi
G. spoil dephasing[2]	4.0 pi
G. spoil dephasing[3]	2.0 pi

Sequence - Special

Modify Ice Config	On
G-factor map	Off
GRAPPA Regularization	5000 /10^6
Slab Scale	-10 %
RF spoil scheme	Conventional

Sequence - Assistant

SAR Assistant	Off

\\MARTINOS DEVELOPER\HUBER\3rd_order_shim_tests_with_Gunjan\Kaisu_20250725\3d_EPI_44sl_TR3_0p8mm_DO_NOT_USE

TA: 1:12 min Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 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
Disable auto transfer to PACS	Off
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	R1.9 P2.5 H6.8 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Slice Oversampling	9.1 %
FOV Read	192 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	64.7 ms
Vol. TR	3105.6 ms
TE 1	30.00 ms
Averages	1
Multi-echo Shots	1
AutoAlign	---

Contrast - Common

TR	64.7 ms
Vol. TR	3105.6 ms
TE 1	30.00 ms
Multi-echo spacing	55.20 ms
MTC	Off
Flip Angle	14 deg
Fat-Water Contrast	Standard
Contrasts	1
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	20
Pause after Meas. 1	0.0 s
Pause after Meas. 2	0.0 s

Contrast - Dynamic

Pause after Meas. 3	0.0 s
Pause after Meas. 4	0.0 s
Pause after Meas. 5	0.0 s
Pause after Meas. 6	0.0 s
Pause after Meas. 7	0.0 s
Pause after Meas. 8	0.0 s
Pause after Meas. 9	0.0 s
Pause after Meas. 10	0.0 s
Pause after Meas. 11	0.0 s
Pause after Meas. 12	0.0 s
Pause after Meas. 13	0.0 s
Pause after Meas. 14	0.0 s
Pause after Meas. 15	0.0 s
Pause after Meas. 16	0.0 s
Pause after Meas. 17	0.0 s
Pause after Meas. 18	0.0 s
Pause after Meas. 19	0.0 s
Reordering	Linear

Resolution - Common

FOV Read	192 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
Base Resolution	240
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CAIPIRINHA
CAIPIRINHA Mode	Free
Reference Scans	GRE/Separate
Acceleration Factor PE	2
Reference Lines PE	48
Acceleration Factor 3D	2
Reference Lines 3D	26
Reordering Shift 3D	1
Phase Partial Fourier	7/8
Slice Partial Fourier	Off

Resolution - Filter

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

Geometry - Common

Slab Group	1

Geometry - Common

Slabs	1
Position	R1.9 P2.5 H6.8 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Slice Oversampling	9.1 %
FOV Read	192 mm
FOV Phase	100.0 %
Slice Thickness	0.80 mm
TR	64.7 ms
Vol. TR	3105.6 ms
Multi-echo Shots	1

Geometry - AutoAlign

Slab Group	1
Position	R1.9 P2.5 H6.8 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	R1.9 P2.5 H6.8
R	1.9 mm
P	2.5 mm
H	6.8 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard

Geometry - Tim Planning Suite

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

System - Miscellaneous

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

System - Adjustments

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

System - Adjust Volume

! Position	R1.9 P0.0 H6.2 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	150 mm
! R >> L	175 mm
! F >> H	49 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.118707 MHz
! Ref. Amplitude 1H	1.000 V
Reset	Off
Image Scaling	1.000

Sequence - Part 1

Sequence Name	ep 256d7d0
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Normal
Gradient Mode	Fast
Reordering	Linear
Bandwidth	1096 Hz/Px
Echo Spacing	1.02 ms
Segmentation	2
EPI Factor	53

Sequence - Part 2

Introduction	On
RF Spoiling	On

Sequence - Special

PAT ref. FA	5 deg
RF duration	4000 us
RF BWT product	25
Ernst T1	1200 ms
PATRef prep. shots	100
Volume dummy shots	0
Noise dummy shots	-1
CHECK FLIP ANGLE!	On
Integrated PC	Off
Invert PE	Off
Min. TE w/ PF	On
Dual-polarity	Off
Ramp Sampling	On
Ext. trigger/shot	Off
Water Exc.	-none-
Phase Correction	per Series
EPI rise time factor	1.15
G. spoil dephasing[1]	0.0 pi
G. spoil dephasing[2]	4.0 pi

Sequence - Special

G. spoil dephasing[3]	2.0 pi
Modify Ice Config	On
G-factor map	Off
GRAPPA Regularization	5000 /10^6
Slab Scale	-30 %
RF spoil scheme	Conventional

Sequence - Assistant

SAR Assistant	Off

\\MARTINOS DEVELOPER\HUBER\3rd_order_shim_tests_with_Gunjan\Kaisu_20250725\3d_EPI_44sl_TR3_0p8mm

TA: 14 sec Coil Selection: Auto Voxel Size: 0.8×0.8×0.8 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
Disable auto transfer to PACS	Off
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	R1.9 P2.5 H6.8 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Slice Oversampling	18.2 %
FOV Read	179 mm
FOV Phase	100.0 %
Slice Thickness	0.84 mm
TR	55.8 ms
Vol. TR	2901.6 ms
TE 1	24.70 ms
Averages	1
Multi-echo Shots	1
AutoAlign	---

Contrast - Common

TR	55.8 ms
Vol. TR	2901.6 ms
TE 1	24.70 ms
Multi-echo spacing	49.10 ms
MTC	Off
Flip Angle	14 deg
Fat-Water Contrast	Standard
Contrasts	1
Reconstruction	Magnitude

Contrast - Dynamic

Dynamic Mode	Standard
Measurements	2
Pause after Meas. 1	0.0 s
Reordering	Linear

Resolution - Common

FOV Read	179 mm
FOV Phase	100.0 %
Slice Thickness	0.84 mm
Base Resolution	212
Phase Resolution	100 %
Slice Resolution	100 %
Interpolation	Off

Resolution - Acceleration

Acceleration Mode	CAIPIRINHA
CAIPIRINHA Mode	Free
Reference Scans	EPI/Separate
Acceleration Factor PE	2
Reference Lines PE	48
Acceleration Factor 3D	2
Reference Lines 3D	24
Reordering Shift 3D	1
Phase Partial Fourier	7/8
Slice Partial Fourier	Off

Resolution - Filter

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

Geometry - Common

Slab Group	1
Slabs	1
Position	R1.9 P2.5 H6.8 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
Slices per Slab	44
Slice Oversampling	18.2 %
FOV Read	179 mm
FOV Phase	100.0 %
Slice Thickness	0.84 mm
TR	55.8 ms
Vol. TR	2901.6 ms
Multi-echo Shots	1

Geometry - AutoAlign

Slab Group	1
Position	R1.9 P2.5 H6.8 mm
Orientation	Transversal
Phase Encoding Dir.	A >> P
AutoAlign	---
Initial Position	R1.9 P2.5 H6.8

Geometry - AutoAlign

R	1.9 mm
P	2.5 mm
H	6.8 mm
Initial Orientation	Transversal
Initial Rotation	0.00 deg

Geometry - Saturation

Saturation Mode	Standard

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table Position	7 mm
Table Position	H

System - Miscellaneous

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

System - Adjustments

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

System - Adjust Volume

! Position	R1.9 P0.0 H6.2 mm
! Orientation	Transversal
! Rotation	0.00 deg
! A >> P	150 mm
! R >> L	175 mm
! F >> H	49 mm
Reset	Off

System - pTx

B1 Shim	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.118707 MHz
? Ref. Amplitude 1H	0.000 V
Reset	Off
Image Scaling	1.000

Sequence - Part 1

Sequence Name	ep 256d7d0
Dimension	3D
Excitation	Slab-sel.
RF Pulse Type	Normal
Gradient Mode	Normal
Reordering	Linear
Bandwidth	1124 Hz/Px
Echo Spacing	1.02 ms
Segmentation	2
EPI Factor	47

Sequence - Part 2

Introduction	On
RF Spoiling	On

Sequence - Special

PAT ref. FA	5 deg
RF duration	4000 us
RF BWT product	25
Ernst T1	1200 ms
PATRef prep. shots	100
Volume dummy shots	0
Noise dummy shots	-1
CHECK FLIP ANGLE!	On
Integrated PC	Off
Invert PE	Off
Min. TE w/ PF	On
Dual-polarity	Off
Ramp Sampling	On
Ext. trigger/shot	Off
Water Exc.	-none-
Phase Correction	per Series
EPI rise time factor	1.09
G. spoil dephasing[1]	0.0 pi
G. spoil dephasing[2]	4.0 pi
G. spoil dephasing[3]	2.0 pi
Modify Ice Config	On
G-factor map	Off
GRAPPA Regularization	5000 /10^6
Slab Scale	-10 %
RF spoil scheme	Conventional

Sequence - Assistant

SAR Assistant	Off