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\\USER\PHCP\MRS\final\localizer

TA: 0:13 PM: REF Voxel size: 0.5×0.5×7.0 mmPAT: Off Rel. SNR: 1.00 : qfl

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	On
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	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	1
Dist. factor	20 %
Position	Isocenter
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	Elliptical filter
Coil elements	OCC;PFC

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
Measurements	1

Contrast - Dynamic

Multiple series	Each measurement

Resolution - Common

FoV read	250 mm
FoV phase	100.0 %
Slice thickness	7.0 mm
Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	On

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	On

Geometry - Common

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	1
Dist. factor	20 %
Position	Isocenter
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	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	Isocenter
Orientation	Transversal

Geometry - AutoAlign

Phase enc. dir.	A >> P
Slice group	3
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Saturation

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

Geometry - Tim Planning Suite

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

Geometry - Tim CT

Tim CT mode	Off
Slices	1
Slice thickness	7.0 mm
Dist. factor	20 %
FoV read	250 mm
FoV phase	100.0 %
Segments	1

System - Miscellaneous

Positioning mode	REF
Table position	F
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	Off - AutoCoilSelect

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	297.207726 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	8.6 ms
Concatenations	3
Segments	1

Physio - Cardiac

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	250 mm
FoV phase	100.0 %
Phase resolution	90 %

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

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle	20 deg
Measurements	1
Contrasts	1
TR	8.6 ms
TE	4.00 ms

Sequence - Part 1

Introduction	On

Sequence - Part 1

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	Active
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC;PFC

Sequence - Assistant

Mode	Off

\\USER\PHCP\MRS\final\AAScout_32ch

TA: 0:18 PM: REF Voxel size: 1.6×1.6×1.6 mmPAT: 2 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

Slab group	1
Slabs	1
Dist. factor	20 %
Position	L0.0 A22.2 F11.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
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
Filter	None
Coil elements	OCC;PFC

Contrast - Common

TR	3.25 ms
TE	1.53 ms
Flip angle	16 deg

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

Resolution - Common

FoV read	260 mm
FoV phase	100.0 %
Slice thickness	1.6 mm
Base resolution	160
Phase resolution	100 %
Slice resolution	69 %
Phase partial Fourier	6/8
Slice partial Fourier	6/8
Trajectory	Cartesian

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1

Resolution - iPAT

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	20 %
Position	L0.0 A22.2 F11.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	128
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 A22.2 F11.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

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
Coil Select Mode	Off - AutoCoilSelect

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	297.207726 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Flip angle	16 deg
Measurements	1
Time to center	7.7 s

Inline - Inline

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	16 deg
Measurements	1
Contrasts	1
TR	3.25 ms
TE	1.53 ms

Sequence - Part 1

Introduction	On
Dimension	3D
Asymmetric echo	Weak

Sequence - Part 1

Contrasts	1
Multi-slice mode	Sequential
Bandwidth	540 Hz/Px

Sequence - Part 2

RF pulse type	Fast
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC;PFC

Sequence - Assistant

Mode	Off

\\USER\PHCP\MRS\final\localizer aligned

TA: 0:28 PM: FIX Voxel size: 0.5×0.5×5.0 mmPAT: Off Rel. SNR: 1.00 : qfl

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	On
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	5
Dist. factor	400 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	2
Slices	5
Dist. factor	600 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	L >> R
Slice group	3
Slices	5
Dist. factor	300 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	7.6 ms
TE	2.67 ms
Averages	1
Concatenations	15
Filter	Elliptical filter
Coil elements	OCC;PFC

Contrast - Common

TR	7.6 ms
TE	2.67 ms
TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

Contrast - Dynamic

Multiple series	Each measurement

Resolution - Common

FoV read	250 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	On

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	On

Geometry - Common

Slice group	1
Slices	5
Dist. factor	400 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	2
Slices	5
Dist. factor	600 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	L >> R
Slice group	3
Slices	5
Dist. factor	300 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	7.6 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	15

Geometry - AutoAlign

Slice group	1
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	2
Position	Isocenter
Orientation	Transversal

Geometry - AutoAlign

Phase enc. dir.	L >> R
Slice group	3
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Coronal

Geometry - Saturation

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

Geometry - Tim Planning Suite

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

Geometry - Tim CT

Tim CT mode	Off
Slices	5
Slice thickness	5.0 mm
Dist. factor	300 %
FoV read	250 mm
FoV phase	100.0 %
Segments	1

System - Miscellaneous

Positioning mode	FIX
Table position	F
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	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

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	297.207726 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	7.6 ms
Concatenations	15
Segments	1

Physio - Cardiac

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	250 mm
FoV phase	100.0 %
Phase resolution	90 %

Physio - PACE

Resp. control	Off
Concatenations	15

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

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle	10 deg
Measurements	1
Contrasts	1
TR	7.6 ms
TE	2.67 ms

Sequence - Part 1

Introduction	On

Sequence - Part 1

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	Active
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC;PFC

Sequence - Assistant

Mode	Off

\\USER\PHCP\MRS\final\t1inplane 64sl occ 1p25iso 2p5sTR 160FOV

TA: 4:02 PM: FIX Voxel size: 1.3×1.3×1.3 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	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

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L1.8 A1.2 H7.3 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	64
FoV read	160 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
TR	2500.0 ms
TE	3.2 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	OCC

Contrast - Common

TR	2500.0 ms
TE	3.2 ms
Magn. preparation	Non-sel. IR
TI	1500 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	160 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
Base resolution	128
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice 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

Geometry - Common

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L1.8 A1.2 H7.3 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	64
FoV read	160 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
TR	2500.0 ms
Multi-slice mode	Single shot
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	L1.8 A1.2 H7.3 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L1.8 A1.2 H7.3
L	1.8 mm
A	1.2 mm
H	7.3 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	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

System - Miscellaneous

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

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	L1.8 P18.8 H15.1 mm
! Orientation	T > C-18.8
! Rotation	0.00 deg
! A >> P	64 mm
! R >> L	148 mm
! F >> H	82 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	2500.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	Non-sel. IR
TI	1500 ms
Fat suppr.	None
Dark blood	Off
FoV read	160 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

Inline - Composing

Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle	5.0 deg
Measurements	1
TR	2500.0 ms
TE	3.2 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	7.9 ms
Bandwidth	180 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Normal
Excitation	Slab-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	64

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC

Sequence - Assistant

Mode	Off

\\USER\PHCP\MRS\final\OCC fastestmap lin

TA: 6.1 s PM: FIX VoI: 18 ×30 ×18 mmRel. SNR: 1.00 : fastmp

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	On
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
VoI R >> L	30 mm
VoI R >> L	30 mm
VoI F >> H	18 mm
TR	2000 ms
TE	46.00 ms
Averages	1
Filter	None
Coil elements	OCC

Contrast

TR	2000 ms
TE	46.00 ms
Tau	5.00 ms
Averages	1
Excite flip angle	90 deg
Refocus flip angle	180 deg
Measurements	1

Resolution - Common

Vector size	256

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
VoI R >> L	30 mm
VoI A >> P	18 mm
VoI F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 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

System - Miscellaneous

Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adj. water suppr.	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	2000 ms

Sequence - Common

Delta frequency	0.0 ppm
Phase cycling	None
Bandwidth	100000 Hz
Acquisition duration	2 ms

Sequence - Special

Type of fit	Linear 3-proj
VoI fit factor	100 %
Force spherical fit VoI	Off Force spherical fit VoI
Save plots to database	Off
Refocus pulses	Normal
Excite pulse duration	6400 us
Refocus pulse duration	5120 us
Bar FoV	384 mm
Bar thickness	10.0 mm
Inversion pulse	Off
Multi-echo acquisition	On
Number of echoes	4

\\USER\PHCP\MRS\final\OCC fastestmap all

TA: 0:12 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : fastmp

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	On
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	2000 ms
TE	46.00 ms
Averages	1
Filter	None
Coil elements	OCC

Contrast

TR	2000 ms
TE	46.00 ms
Tau	5.00 ms
Averages	1
Excite flip angle	90 deg
Refocus flip angle	180 deg
Measurements	1

Resolution - Common

Vector size	256

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 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

System - Miscellaneous

Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adj. water suppr.	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	2000 ms

Sequence - Common

Delta frequency	0.0 ppm
Phase cycling	None
Bandwidth	100000 Hz
Acquisition duration	2 ms

Sequence - Special

Type of fit	Full 6-proj
Vol fit factor	100 %
Force spherical fit Vol	Off Force spherical fit Vol
Save plots to database	Off
Refocus pulses	Normal
Excite pulse duration	6400 us
Refocus pulse duration	5120 us
Bar FoV	384 mm
Bar thickness	10.0 mm
Inversion pulse	Off
Multi-echo acquisition	On
Number of echoes	4

\\USER\PHCP\MRS\final\OCC fastestmap all

TA: 0:12 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : fastmp

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	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	2000 ms
TE	46.00 ms
Averages	1
Filter	None
Coil elements	OCC

Contrast

TR	2000 ms
TE	46.00 ms
Tau	5.00 ms
Averages	1
Excite flip angle	90 deg
Refocus flip angle	180 deg
Measurements	1

Resolution - Common

Vector size	256

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 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

System - Miscellaneous

Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adj. water suppr.	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	2000 ms

Sequence - Common

Delta frequency	0.0 ppm
Phase cycling	None
Bandwidth	100000 Hz
Acquisition duration	2 ms

Sequence - Special

Type of fit	Full 6-proj
Vol fit factor	100 %
Force spherical fit Vol	Off Force spherical fit Vol
Save plots to database	Off
Refocus pulses	Normal
Excite pulse duration	6400 us
Refocus pulse duration	5120 us
Bar FoV	384 mm
Bar thickness	10.0 mm
Inversion pulse	Off
Multi-echo acquisition	On
Number of echoes	4

\\USER\PHCP\MRS\final\OCC fastestmap all

TA: 0:12 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : fastmp

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	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	2000 ms
TE	46.00 ms
Averages	1
Filter	None
Coil elements	OCC

Contrast

TR	2000 ms
TE	46.00 ms
Tau	5.00 ms
Averages	1
Excite flip angle	90 deg
Refocus flip angle	180 deg
Measurements	1

Resolution - Common

Vector size	256

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 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

System - Miscellaneous

Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adj. water suppr.	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	2000 ms

Sequence - Common

Delta frequency	0.0 ppm
Phase cycling	None
Bandwidth	100000 Hz
Acquisition duration	2 ms

Sequence - Special

Type of fit	Full 6-proj
Vol fit factor	100 %
Force spherical fit Vol	Off Force spherical fit Vol
Save plots to database	Off
Refocus pulses	Normal
Excite pulse duration	6400 us
Refocus pulse duration	5120 us
Bar FoV	384 mm
Bar thickness	10.0 mm
Inversion pulse	Off
Multi-echo acquisition	On
Number of echoes	4

\\USER\PHCP\MRS\final\OCC fastestmap lin6

TA: 0:24 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : fastmp

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	On
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	2000 ms
TE	46.00 ms
Averages	1
Filter	None
Coil elements	OCC

Contrast

TR	2000 ms
TE	46.00 ms
Tau	20.00 ms
Averages	1
Excite flip angle	90 deg
Refocus flip angle	180 deg
Measurements	1

Resolution - Common

Vector size	256

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 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

System - Miscellaneous

Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adj. water suppr.	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	2000 ms

Sequence - Common

Delta frequency	0.0 ppm
Phase cycling	None
Bandwidth	100000 Hz
Acquisition duration	2 ms

Sequence - Special

Type of fit	Linear 6-proj
Vol fit factor	100 %
Force spherical fit Vol	Off Force spherical fit Vol
Save plots to database	Off
Refocus pulses	Normal
Excite pulse duration	6400 us
Refocus pulse duration	5120 us
Bar FoV	384 mm
Bar thickness	10.0 mm
Inversion pulse	Off
Multi-echo acquisition	Off

\\USER\PHCP\MRS\final\OCC linewidth check

TA: 0:23 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	OCC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	90 deg
VAPOR	Only RF off
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	1

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

System - Miscellaneous

Positioning mode	FIX

System - Miscellaneous

Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	0.0 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m
Refocus grad. factor	1.00

Sequence - Special

OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	None

\\USER\PHCP\MRS\final\OCC steam eja cal fa 50 10 7

TA: 0:53 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : steam

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	On
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	OCC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	50 deg
VAPOR	Only RF off
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	7

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

System - Miscellaneous

Positioning mode	FIX

System - Miscellaneous

Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	0.0 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC

Sequence - Special

RF pulse duration	1520 us
Spoiler max. amplitude	30.0 mT/m
Refocus grad. factor	1.00

Sequence - Special

OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Weighted averages	Off
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	Flip angle
Flip angle inc.	10 deg
Measurements	7

\\USER\PHCP\MRS\final\OCC steam eja cal fa 80 3 10

TA: 1:08 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	OCC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	80 deg
VAPOR	Only RF off
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	10

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

System - Miscellaneous

Positioning mode	FIX

System - Miscellaneous

Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	0.0 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC

Sequence - Special

RF pulse duration	1520 us
Spoiler max. amplitude	30.0 mT/m
Refocus grad. factor	1.00

Sequence - Special

OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Weighted averages	Off
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	Flip angle
Flip angle inc.	3 deg
Measurements	10

\\USER\PHCP\MRS\final\OCC steam eja ws check

TA: 0:38 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	5000 ms
TE	8.00 ms
Averages	4
Filter	None
Coil elements	OCC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	4
Flip angle	90 deg
VAPOR	Enabled
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	1

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

System - Miscellaneous

Positioning mode	FIX

System - Miscellaneous

Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	-1.7 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m
Refocus grad. factor	1.00

Sequence - Special

OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	72 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Resolve averages	On
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	None

\\USER\PHCP\MRS\final\OCC steam eja metab

TA: 8:33 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	5000 ms
TE	8.00 ms
Averages	96
Filter	None
Coil elements	OCC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	96
Flip angle	90 deg
VAPOR	Enabled
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	1

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

System - Miscellaneous

Positioning mode	FIX

System - Miscellaneous

Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	-1.7 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m
Refocus grad. factor	1.00

Sequence - Special

OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	72 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Resolve averages	On
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	None

\\USER\PHCP\MRS\final\OCC steam eja w1

TA: 0:23 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	OCC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	90 deg
VAPOR	Only RF off
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	1

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

System - Miscellaneous

Positioning mode	FIX

System - Miscellaneous

Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	0.0 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m
Refocus grad. factor	1.00

Sequence - Special

OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	None

\\USER\PHCP\MRS\final\OCC steam eja w4

TA: 0:38 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	5000 ms
TE	8.00 ms
Averages	4
Filter	None
Coil elements	OCC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	4
Flip angle	90 deg
VAPOR	Only RF off
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	1

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

System - Miscellaneous

Positioning mode	FIX

System - Miscellaneous

Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	0.0 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m
Refocus grad. factor	1.00

Sequence - Special

OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Resolve averages	On
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	None

\\USER\PHCP\MRS\final\OCC steam eja w1 noOVS

TA: 0:23 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	OCC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	90 deg
VAPOR	Only RF off
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	1

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

System - Miscellaneous

Positioning mode	FIX

System - Miscellaneous

Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	0.0 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m
Refocus grad. factor	1.00

Sequence - Special

Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	Off
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	None

\\USER\PHCP\MRS\final\OCC steam eja ws FA optimization

TA: 1:08 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	OCC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	90 deg
VAPOR	Enabled
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	10

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

System - Miscellaneous

Positioning mode	FIX

System - Miscellaneous

Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	-1.7 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m
Refocus grad. factor	1.00

Sequence - Special

OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Weighted averages	Off
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	WS FA
WS FA inc.	2 deg
Measurements	10

\\USER\PHCP\MRS\final\OCC steam eja ws delay 7

TA: 1:08 PM: FIX Vol: 18 ×30 ×18 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol R >> L	30 mm
Vol F >> H	18 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	OCC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	90 deg
VAPOR	Enabled
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	10

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0 deg
Vol R >> L	30 mm
Vol A >> P	18 mm
Vol F >> H	18 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

System - Miscellaneous

Positioning mode	FIX

System - Miscellaneous

Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	Transversal
Rotation	0.00 deg
A >> P	18 mm
R >> L	30 mm
F >> H	18 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	-1.7 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m
Refocus grad. factor	1.00

Sequence - Special

OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Weighted averages	Off
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	WS delay 7
WS delay 7 inc.	3 ms
Measurements	10

\\USER\PHCP\MRS\final\PFC localizer

TA: 0:13 PM: REF Voxel size: 0.5×0.5×7.0 mmPAT: Off Rel. SNR: 1.00 : qfl

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	On
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	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	1
Dist. factor	20 %
Position	Isocenter
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	Elliptical filter
Coil elements	OCC;PFC

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
Measurements	1

Contrast - Dynamic

Multiple series	Each measurement

Resolution - Common

FoV read	250 mm
FoV phase	100.0 %
Slice thickness	7.0 mm
Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	On

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	On

Geometry - Common

Slice group	1
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	1
Dist. factor	20 %
Position	Isocenter
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	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	Isocenter
Orientation	Transversal

Geometry - AutoAlign

Phase enc. dir.	A >> P
Slice group	3
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Saturation

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

Geometry - Tim Planning Suite

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

Geometry - Tim CT

Tim CT mode	Off
Slices	1
Slice thickness	7.0 mm
Dist. factor	20 %
FoV read	250 mm
FoV phase	100.0 %
Segments	1

System - Miscellaneous

Positioning mode	REF
Table position	F
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	Off - AutoCoilSelect

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	297.207726 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	8.6 ms
Concatenations	3
Segments	1

Physio - Cardiac

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	250 mm
FoV phase	100.0 %
Phase resolution	90 %

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

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle	20 deg
Measurements	1
Contrasts	1
TR	8.6 ms
TE	4.00 ms

Sequence - Part 1

Introduction	On

Sequence - Part 1

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	Active
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC;PFC

Sequence - Assistant

Mode	Off

\\USER\PHCP\MRS\final\PFC AAScout_32ch

TA: 0:18 PM: REF Voxel size: 1.6×1.6×1.6 mmPAT: 2 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

Slab group	1
Slabs	1
Dist. factor	20 %
Position	L0.0 A22.2 F11.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
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
Filter	None
Coil elements	OCC;PFC

Contrast - Common

TR	3.25 ms
TE	1.53 ms
Flip angle	16 deg

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

Resolution - Common

FoV read	260 mm
FoV phase	100.0 %
Slice thickness	1.6 mm
Base resolution	160
Phase resolution	100 %
Slice resolution	69 %
Phase partial Fourier	6/8
Slice partial Fourier	6/8
Trajectory	Cartesian

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1

Resolution - iPAT

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	20 %
Position	L0.0 A22.2 F11.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	128
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 A22.2 F11.5 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

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
Coil Select Mode	On - AutoCoilSelect

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	297.207726 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Flip angle	16 deg
Measurements	1
Time to center	7.7 s

Inline - Inline

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	16 deg
Measurements	1
Contrasts	1
TR	3.25 ms
TE	1.53 ms

Sequence - Part 1

Introduction	On
Dimension	3D
Asymmetric echo	Weak

Sequence - Part 1

Contrasts	1
Multi-slice mode	Sequential
Bandwidth	540 Hz/Px

Sequence - Part 2

RF pulse type	Fast
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC;PFC

Sequence - Assistant

Mode	Off

\\USER\PHCP\MRS\final\localizer aligned

TA: 0:28 PM: FIX Voxel size: 0.5×0.5×5.0 mmPAT: Off Rel. SNR: 1.00 : qfl

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	On
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	5
Dist. factor	400 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	2
Slices	5
Dist. factor	600 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	L >> R
Slice group	3
Slices	5
Dist. factor	300 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	7.6 ms
TE	2.67 ms
Averages	1
Concatenations	15
Filter	Elliptical filter
Coil elements	OCC;PFC

Contrast - Common

TR	7.6 ms
TE	2.67 ms
TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

Contrast - Dynamic

Multiple series	Each measurement

Resolution - Common

FoV read	250 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	On

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	On

Geometry - Common

Slice group	1
Slices	5
Dist. factor	400 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	2
Slices	5
Dist. factor	600 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	L >> R
Slice group	3
Slices	5
Dist. factor	300 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	7.6 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	15

Geometry - AutoAlign

Slice group	1
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Slice group	2
Position	Isocenter
Orientation	Transversal

Geometry - AutoAlign

Phase enc. dir.	L >> R
Slice group	3
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Coronal

Geometry - Saturation

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

Geometry - Tim Planning Suite

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

Geometry - Tim CT

Tim CT mode	Off
Slices	5
Slice thickness	5.0 mm
Dist. factor	300 %
FoV read	250 mm
FoV phase	100.0 %
Segments	1

System - Miscellaneous

Positioning mode	FIX
Table position	F
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	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

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	297.207726 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	7.6 ms
Concatenations	15
Segments	1

Physio - Cardiac

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	250 mm
FoV phase	100.0 %
Phase resolution	90 %

Physio - PACE

Resp. control	Off
Concatenations	15

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

Inline Composing	Off
Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle	10 deg
Measurements	1
Contrasts	1
TR	7.6 ms
TE	2.67 ms

Sequence - Part 1

Introduction	On

Sequence - Part 1

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	Active
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	OCC;PFC

Sequence - Assistant

Mode	Off

\\USER\PHCP\MRS\final\PFC t1inplane 64sl occ 1p25iso 2p5sTR 160FOV

TA: 4:02 PM: FIX Voxel size: 1.3×1.3×1.3 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	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

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L1.8 A1.2 H7.3 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	64
FoV read	160 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
TR	2500.0 ms
TE	3.2 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	PFC

Contrast - Common

TR	2500.0 ms
TE	3.2 ms
Magn. preparation	Non-sel. IR
TI	1500 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	160 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
Base resolution	128
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice 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

Geometry - Common

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L1.8 A1.2 H7.3 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	64
FoV read	160 mm
FoV phase	100.0 %
Slice thickness	1.25 mm
TR	2500.0 ms
Multi-slice mode	Single shot
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	L1.8 A1.2 H7.3 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L1.8 A1.2 H7.3
L	1.8 mm
A	1.2 mm
H	7.3 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	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

System - Miscellaneous

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

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	L1.8 P18.8 H15.1 mm
! Orientation	T > C-18.8
! Rotation	0.00 deg
! A >> P	64 mm
! R >> L	148 mm
! F >> H	82 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	2500.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	Non-sel. IR
TI	1500 ms
Fat suppr.	None
Dark blood	Off
FoV read	160 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

Inline - Composing

Distortion Corr.	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle	5.0 deg
Measurements	1
TR	2500.0 ms
TE	3.2 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	7.9 ms
Bandwidth	180 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Normal
Excitation	Slab-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	64

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	PFC

Sequence - Assistant

Mode	Off

\\USER\PHCP\MRS\final\PFC fastestmap lin

TA: 6.1 s PM: FIX VoI: 30 ×30 ×15 mmRel. SNR: 1.00 : fastmp

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	On
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
VoI F >> H	30 mm
VoI F >> H	30 mm
VoI A >> P	15 mm
TR	2000 ms
TE	46.00 ms
Averages	1
Filter	None
Coil elements	PFC

Contrast

TR	2000 ms
TE	46.00 ms
Tau	5.00 ms
Averages	1
Excite flip angle	90 deg
Refocus flip angle	180 deg
Measurements	1

Resolution - Common

Vector size	256

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
VoI F >> H	30 mm
VoI R >> L	30 mm
VoI A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

System - Miscellaneous

Positioning mode	FIX
Table position	H

System - Miscellaneous

Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adj. water suppr.	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	2000 ms

Sequence - Common

Delta frequency	0.0 ppm
Phase cycling	None
Bandwidth	100000 Hz
Acquisition duration	2 ms

Sequence - Special

Type of fit	Linear 3-proj
VoI fit factor	100 %
Force spherical fit VoI	Off Force spherical fit VoI
Save plots to database	Off
Refocus pulses	Normal
Excite pulse duration	6400 us
Refocus pulse duration	5120 us
Bar FoV	384 mm
Bar thickness	10.0 mm
Inversion pulse	Off
Multi-echo acquisition	On
Number of echoes	4

\\USER\PHCP\MRS\final\PFC fastestmap all

TA: 0:12 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : fastmp

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	On
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	2000 ms
TE	46.00 ms
Averages	1
Filter	None
Coil elements	PFC

Contrast

TR	2000 ms
TE	46.00 ms
Tau	5.00 ms
Averages	1
Excite flip angle	90 deg
Refocus flip angle	180 deg
Measurements	1

Resolution - Common

Vector size	256

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

System - Miscellaneous

Positioning mode	FIX
Table position	H

System - Miscellaneous

Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adj. water suppr.	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	2000 ms

Sequence - Common

Delta frequency	0.0 ppm
Phase cycling	None
Bandwidth	100000 Hz
Acquisition duration	2 ms

Sequence - Special

Type of fit	Full 6-proj
Vol fit factor	100 %
Force spherical fit Vol	Off Force spherical fit Vol
Save plots to database	Off
Refocus pulses	Normal
Excite pulse duration	6400 us
Refocus pulse duration	5120 us
Bar FoV	384 mm
Bar thickness	10.0 mm
Inversion pulse	Off
Multi-echo acquisition	On
Number of echoes	4

\\USER\PHCP\MRS\final\PFC fastestmap all

TA: 0:12 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : fastmp

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	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	2000 ms
TE	46.00 ms
Averages	1
Filter	None
Coil elements	PFC

Contrast

TR	2000 ms
TE	46.00 ms
Tau	5.00 ms
Averages	1
Excite flip angle	90 deg
Refocus flip angle	180 deg
Measurements	1

Resolution - Common

Vector size	256

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

System - Miscellaneous

Positioning mode	FIX
Table position	H

System - Miscellaneous

Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adj. water suppr.	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	2000 ms

Sequence - Common

Delta frequency	0.0 ppm
Phase cycling	None
Bandwidth	100000 Hz
Acquisition duration	2 ms

Sequence - Special

Type of fit	Full 6-proj
Vol fit factor	100 %
Force spherical fit Vol	Off Force spherical fit Vol
Save plots to database	Off
Refocus pulses	Normal
Excite pulse duration	6400 us
Refocus pulse duration	5120 us
Bar FoV	384 mm
Bar thickness	10.0 mm
Inversion pulse	Off
Multi-echo acquisition	On
Number of echoes	4

\\USER\PHCP\MRS\final\PFC fastestmap all

TA: 0:12 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : fastmp

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	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	2000 ms
TE	46.00 ms
Averages	1
Filter	None
Coil elements	PFC

Contrast

TR	2000 ms
TE	46.00 ms
Tau	5.00 ms
Averages	1
Excite flip angle	90 deg
Refocus flip angle	180 deg
Measurements	1

Resolution - Common

Vector size	256

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

System - Miscellaneous

Positioning mode	FIX
Table position	H

System - Miscellaneous

Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adj. water suppr.	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	2000 ms

Sequence - Common

Delta frequency	0.0 ppm
Phase cycling	None
Bandwidth	100000 Hz
Acquisition duration	2 ms

Sequence - Special

Type of fit	Full 6-proj
Vol fit factor	100 %
Force spherical fit Vol	Off Force spherical fit Vol
Save plots to database	Off
Refocus pulses	Normal
Excite pulse duration	6400 us
Refocus pulse duration	5120 us
Bar FoV	384 mm
Bar thickness	10.0 mm
Inversion pulse	Off
Multi-echo acquisition	On
Number of echoes	4

\\USER\PHCP\MRS\final\PFC fastestmap lin6

TA: 0:24 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : fastmp

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	On
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	2000 ms
TE	46.00 ms
Averages	1
Filter	None
Coil elements	PFC

Contrast

TR	2000 ms
TE	46.00 ms
Tau	20.00 ms
Averages	1
Excite flip angle	90 deg
Refocus flip angle	180 deg
Measurements	1

Resolution - Common

Vector size	256

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

System - Miscellaneous

Positioning mode	FIX
Table position	H

System - Miscellaneous

Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adj. water suppr.	Off
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	2000 ms

Sequence - Common

Delta frequency	0.0 ppm
Phase cycling	None
Bandwidth	100000 Hz
Acquisition duration	2 ms

Sequence - Special

Type of fit	Linear 6-proj
Vol fit factor	100 %
Force spherical fit Vol	Off Force spherical fit Vol
Save plots to database	Off
Refocus pulses	Normal
Excite pulse duration	6400 us
Refocus pulse duration	5120 us
Bar FoV	384 mm
Bar thickness	10.0 mm
Inversion pulse	Off
Multi-echo acquisition	Off

\\USER\PHCP\MRS\final\PFC linewidth check

TA: 0:23 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	PFC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	90 deg
VAPOR	Only RF off
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	1

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

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	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	0.0 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	PFC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m

Sequence - Special

Refocus grad. factor	1.00
OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	None

\\USER\PHCP\MRS\final\PFC steam eja cal fa 50 10 7

TA: 0:53 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : steam

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	On
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	PFC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	50 deg
VAPOR	Only RF off
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	7

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

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	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	0.0 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	PFC

Sequence - Special

RF pulse duration	1520 us
Spoiler max. amplitude	30.0 mT/m

Sequence - Special

Refocus grad. factor	1.00
OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Weighted averages	Off
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	Flip angle
Flip angle inc.	10 deg
Measurements	7

\\USER\PHCP\MRS\final\PFC steam eja cal fa 80 3 10

TA: 1:08 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	PFC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	80 deg
VAPOR	Only RF off
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	10

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

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	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	0.0 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	PFC

Sequence - Special

RF pulse duration	1520 us
Spoiler max. amplitude	30.0 mT/m

Sequence - Special

Refocus grad. factor	1.00
OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Weighted averages	Off
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	Flip angle
Flip angle inc.	3 deg
Measurements	10

\\USER\PHCP\MRS\final\PFC steam eja ws check

TA: 0:38 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	5000 ms
TE	8.00 ms
Averages	4
Filter	None
Coil elements	PFC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	4
Flip angle	90 deg
VAPOR	Enabled
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	1

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

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	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	-1.7 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	PFC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m

Sequence - Special

Refocus grad. factor	1.00
OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	72 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Resolve averages	On
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	None

\\USER\PHCP\MRS\final\PFC steam eja metab

TA: 8:33 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	5000 ms
TE	8.00 ms
Averages	96
Filter	None
Coil elements	PFC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	96
Flip angle	90 deg
VAPOR	Enabled
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	1

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

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	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	-1.7 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	PFC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m

Sequence - Special

Refocus grad. factor	1.00
OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	72 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Resolve averages	On
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	None

\\USER\PHCP\MRS\final\PFC steam eja w1

TA: 0:23 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	PFC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	90 deg
VAPOR	Only RF off
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	1

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

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	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	0.0 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	PFC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m

Sequence - Special

Refocus grad. factor	1.00
OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	None

\\USER\PHCP\MRS\final\PFC steam eja w4

TA: 0:38 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	5000 ms
TE	8.00 ms
Averages	4
Filter	None
Coil elements	PFC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	4
Flip angle	90 deg
VAPOR	Only RF off
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	1

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

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	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	0.0 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	PFC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m

Sequence - Special

Refocus grad. factor	1.00
OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Resolve averages	On
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	None

\\USER\PHCP\MRS\final\PFC steam eja w1 noOVS

TA: 0:23 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	PFC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	90 deg
VAPOR	Only RF off
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	1

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

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	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	0.0 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	PFC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m

Sequence - Special

Refocus grad. factor	1.00
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	Off
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	None

\\USER\PHCP\MRS\final\PFC steam eja ws FA optimization

TA: 1:08 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	PFC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	90 deg
VAPOR	Enabled
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	10

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

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	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	-1.7 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	PFC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m

Sequence - Special

Refocus grad. factor	1.00
OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Weighted averages	Off
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	WS FA
WS FA inc.	2 deg
Measurements	10

\\USER\PHCP\MRS\final\PFC steam eja ws delay 7

TA: 1:08 PM: FIX Vol: 30 ×30 ×15 mmRel. SNR: 1.00 : steam

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	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol F >> H	30 mm
Vol A >> P	15 mm
TR	5000 ms
TE	8.00 ms
Averages	1
Filter	None
Coil elements	PFC

Contrast

TR	5000 ms
TE	8.00 ms
TM	32.00 ms
Averages	1
Flip angle	90 deg
VAPOR	Enabled
VAPOR suppr.	Water suppr.
Water s. BW	135 Hz
Water s. delta pos.	0.00 ppm
Measurements	10

Resolution - Common

Vector size	2048

Geometry - Common

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0 deg
Vol F >> H	30 mm
Vol R >> L	30 mm
Vol A >> P	15 mm

Geometry - AutoAlign

AutoAlign	Head > Brain
Initial Position	L1.2 P49.6 H8.9
L	1.2 mm
P	49.6 mm
H	8.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	30.0
> S	0.0

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	Head > Brain
Coil Select Mode	Off - AutoCoilSelect

System - Adjustments

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

System - Adjust Volume

Position	L1.2 P49.6 H8.9 mm
Orientation	C > T30.0
Rotation	0.00 deg
R >> L	30 mm
F >> H	30 mm
A >> P	15 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.207726 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	5000 ms

Sequence - Common

Introduction	On
Preparation scans	2
Delta frequency	-1.7 ppm
Phase cycling	Auto
Bandwidth	6000 Hz
Acquisition duration	341 ms
Remove oversampling	On

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	PFC

Sequence - Special

RF pulse duration	1280 us
Spoiler max. amplitude	30.0 mT/m

Sequence - Special

Refocus grad. factor	1.00
OVS slab thickness	100.0 mm
OVS slab pos. offset	5.0 mm
Spoiler duration	1500 us
Acq. window shift	200 us
Min. settling delay	100 us
Gradient ramp time	200 us
VAPOR flip angle	60 deg
VAPOR delay 8	16 ms
VAPOR delay 7	66 ms
OVS pulse duration	2560 us
OVS flip angle RO	90 deg
OVS flip angle PH	90 deg
OVS flip angle SL	90 deg
VAPOR delay 6	71 ms
VAPOR delay 5	112 ms
VAPOR delay 4	115 ms
VAPOR delay 3	132 ms
VAPOR delay 2	110 ms
VAPOR delay 1	160 ms
Enable OVS	On
Weighted averages	Off
Send ref. scans	Off
Inversion pulse	Off
Symmetric RF pulses	On
Invert SS grad. pol.	Off
Shift RO frequency	Off
Debug loop type	WS delay 7
WS delay 7 inc.	3 ms
Measurements	10