\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170615\BP_grase_clean_VASO_V04_pF58_V250

TA: 0:50	PAT: Off	Voxel size: 0.8×0.8×0.8 mm	Rel. SNR: 1.00	USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	2500 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1400 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	R2.7 P42.1 H0.0
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1

Bandwidth	1144 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170615\BP_grase_clean_VASO_V04_pF58_V250

TA: 0:50   PAT: Off   Voxel size: 0.8×0.8×0.8 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	2500 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1200 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	R2.7 P42.1 H0.0
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1

Bandwidth	1144 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170615\BP_grase_clean_VASO_V04_pF58_V250

TA: 0:50	PAT: Off	Voxel size: 0.8×0.8×0.8 mm	Rel. SNR: 1.00	USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	2500 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1600 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	R2.7 P42.1 H0.0
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1

Bandwidth	1144 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170615\BP_grase_clean_VASO_V04_pFoff_iPAT2

TA: 1:00   PAT: 2   Voxel size: 0.8×0.8×0.8 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	2500 ms
TE	36.88 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1400 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s

Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Ref. lines 3D	8
Reference scan mode	Separate
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	R2.7 P42.1 H0.0
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	1144 Hz/Px
Echo spacing	1.1 ms
Turbo factor	8
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	3

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170615\BP_grase_clean_VASO_V04_pFoff_iPAT2

TA: 1:00   PAT: 2   Voxel size: 0.8×0.8×0.8 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R4.3 A26.7 H40.5
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	2500 ms
TE	36.88 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1400 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Ref. lines 3D	8
Reference scan mode	Separate
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	R4.3 A26.7 H74.2
Orientation	Sagittal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.3 A26.7 H40.5
Orientation	Transversal
Rotation	90.00 deg
A >> P	130 mm
R >> L	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	1144 Hz/Px
Echo spacing	1.1 ms
Turbo factor	8
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	3

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170615\BP_grase_clean_VASO_V04_pF58_V250

| TA: 0:50 | PAT: Off | Voxel size: 0.8×0.8×0.8 mm | Rel. SNR: 1.00 | USER: BP_grase_clean_VASO_V04 |

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R4.3 A26.7 H40.5
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	2500 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1400 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	R4.3 A26.7 H74.2
Orientation	Sagittal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.3 A26.7 H40.5
Orientation	Transversal
Rotation	90.00 deg
A >> P	130 mm
R >> L	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1

Bandwidth	1144 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170615\BP_grase_clean_VASO_V05

TA: 3.0 s   PAT: Off   Voxel size: 7.8×7.8×3.0 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V05

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	20
FoV read	500 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	3000 ms
TE	42.12 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	T1

Contrast

Magn. preparation	None
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	64
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	66 mm
Position	Isocenter
Orientation	Transversal

Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	Off
B4	Off
M3	Off
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	500 mm
A >> P	500 mm
F >> H	60 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	2004 Hz/Px
Echo spacing	0.5 ms
RF pulse type	Normal
Gradient mode	Fast
Crusher Momentum	40000
Crusher Time	2000
refocussing type	sinc 2560
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	Mosaic
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170629\BP_grase_clean_VASO_V04_pF58_V250

TA: 0:50   PAT: Off   Voxel size: 0.8×0.8×0.8 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	2500 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	830 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	R2.7 P42.1 H0.0
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1

Bandwidth	1144 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170629\BP_grase_clean_VASO_V04_pF58_V250

TA: 0:50   PAT: Off   Voxel size: 0.8×0.8×0.8 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	2500 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	880 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s

Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	R2.7 P42.1 H0.0
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1

Bandwidth	1144 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170629\BP_grase_clean_VASO_V04_pF58_V250

TA: 0:50	PAT: Off	Voxel size: 0.8×0.8×0.8 mm	Rel. SNR: 1.00	USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	2500 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	780 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	R2.7 P42.1 H0.0
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1

Bandwidth	1144 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170629\BP_grase_clean_VASO_V04_pFoff_GRAI

TA: 0:53   PAT: 2   Voxel size: 0.8×0.8×0.8 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	2500 ms
TE	36.88 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	830 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Ref. lines 3D	8
Reference scan mode	Separate
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	R2.7 P42.1 H0.0
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	1144 Hz/Px
Echo spacing	1.1 ms
Turbo factor	8
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170629\BP_grase_clean_VASO_V04_pFoff_GRAI

TA: 0:53	PAT: 2	Voxel size: 0.8×0.8×0.8 mm	Rel. SNR: 1.00	USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	2500 ms
TE	36.88 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	None
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s

Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Ref. lines 3D	8
Reference scan mode	Separate
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	R2.7 P42.1 H0.0
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.3 P42.1 F33.7
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	1144 Hz/Px
Echo spacing	1.1 ms
Turbo factor	8
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170629\BP_grase_clean_VASO_V04_pFoff_GRAI

| TA: 0:50 | PAT: Off | Voxel size: 0.8×0.8×0.8 mm | Rel. SNR: 1.00 | USER: BP_grase_clean_VASO_V04 |

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	L2.5 P38.7 F20.9
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	2500 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	None
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s

Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	L4.0 P38.7 H12.8
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L2.5 P38.7 F20.9
! Orientation	Transversal
! Rotation	0.00 deg
! R >> L	130 mm
! A >> P	41 mm
! F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	1144 Hz/Px

Echo spacing	1 ms
Turbo factor	8
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170629\BP_grase_clean_VASO_V04_pF58_GRAI

| TA: 0:50 | PAT: Off | Voxel size: 0.8×0.8×0.8 mm | Rel. SNR: 1.00 | USER: BP_grase_clean_VASO_V04 |

			Multiple series	Off

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	L2.5 P38.7 F20.9
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	2500 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	None
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	L4.0 P38.7 H12.8
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	L2.5 P38.7 F20.9
! Orientation	Transversal
! Rotation	0.00 deg
! R >> L	130 mm
! A >> P	41 mm
! F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	1144 Hz/Px

Echo spacing	1 ms
Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170719\localizer_200V

TA: 0:16   PAT: 2   Voxel size: 1.2×1.1×3.0 mm   Rel. SNR: 1.00   SIEMENS: gre

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	On
Load images to graphic segments	On
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Slice group 3	
Slices	5
Dist. factor	200 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	280 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	10.0 ms
TE	3.00 ms
Averages	1
Concatenations	15
Filter	None
Coil elements	B4;M2,3;T1

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	90 %
Phase partial Fourier	6/8
Interpolation	On
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Interleaved
Saturation mode	Standard
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off
Tim CT mode	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Off
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	200.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
Segments	1
Tagging	None
Dark blood	Off
Resp. control	Off

Inline

Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	320 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Whisper
Excitation	Slice-sel.
RF spoiling	On

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170719\b1map_230V

TA: 1:09   Voxel size: 3.9×3.9×5.0 mm   Rel. SNR: 1.00   USER: b1map_658

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	8
Dist. factor	200 %
Position	L0.0 A28.5 F5.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	5 mm
TR	1000 ms
TE 1	14 ms
TE 2	14 ms
Averages	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Flip angle 1	90 deg
Flip angle 2	120 deg
Flip angle 3	60 deg
Flip angle 4	135 deg
Flip angle 5	45 deg
Measurements	1

Resolution

Base resolution	64
Phase resolution	100 %
Raw filter	Off

Geometry

Series	Ascending
Navigator 1	
Position	L0.0 A22.9 F8.8
Orientation	Transversal
Rotation	0.00 deg
Base size phase	40 mm
Base size read	40 mm
Thickness	40 mm
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Composing

Sequence

Contrasts	2
Bandwidth	260.416667 Hz/Px
T1 Compensation	Mean T1
Mean T1	1800.0 ms
Angles	1
Amplitude Weighting	Linear
Scale Bar	Enabled
Raw Data	Disabled

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170719\mp2rage_0.7mm_TR4500

TA: 7:50   PAT: 3   Voxel size: 0.7×0.7×0.7 mm   Rel. SNR: 1.00   USER: mp2rage_wip602B

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	On
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	50 %
Position	L2.7 A28.3 F39.8
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	256
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	0.70 mm
TR	4500 ms
TE	3.37 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI 1	900 ms
TI 2	3000 ms
Flip angle 1	5 deg
Flip angle 2	3 deg
Fat suppr.	Water excit. fast
Water suppr.	None
2nd Inversion-Contrast	On
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
Slice partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	36
Accel. factor 3D	1
Reference scan mode	Integrated

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

Geometry

Multi-slice mode	Single shot
Series	Interleaved
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L2.7 A28.3 F39.8
Orientation	Sagittal
Rotation	0.00 deg
F >> H	224 mm
A >> P	224 mm
R >> L	180 mm

Physio

1st Signal/Mode	None
Dark blood	Off
Resp. control	Off

Inline

Subtract	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Off
Contrasts	1
Bandwidth	200 Hz/Px
Flow comp.	Slice
Echo spacing	8.3 ms
RF pulse type	Fast
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On
FFT Scale Factor	200 %
Line/Partition Swap	Off
Homodyne Phase Filter	Off
Flat Image	On
T1 Map	On
Division Image	Off
ExtInvPulseOn	On
OffResFreqInv	0
Invflipangle	970

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170719\BP_grase_clean_VASO_V04_pF58_V250

TA: 1:00   PAT: Off   Voxel size: 0.8×0.8×0.8 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	L3.8 P36.0 F12.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	3000 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1460 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	L5.4 P36.0 H20.9
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L3.8 P36.0 F12.8
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1

Bandwidth	1144 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170719\BP_grase_clean_VASO_V04_pF58_V250

TA: 2:00	PAT: Off	Voxel size: 0.8×0.8×0.8 mm	Rel. SNR: 1.00	USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	L3.8 P36.0 F12.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	6000 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1460 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	L5.4 P36.0 H20.9
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L3.8 P36.0 F12.8
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1

Bandwidth	1144 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170719\BP_grase_clean_VASO_V04_pF58_V250

TA: 1:00   PAT: Off   Voxel size: 0.8×0.8×0.8 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	L3.8 P36.0 F12.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	3000 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1040 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	L5.4 P36.0 H20.9
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L3.8 P36.0 F12.8
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1

Bandwidth	1144 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170719\BP_grase_clean_VASO_V04_pF58_V250

TA: 2:00	PAT: Off	Voxel size: 0.8×0.8×0.8 mm	Rel. SNR: 1.00	USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	L3.8 P36.0 F12.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	6000 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1040 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	L5.4 P36.0 H20.9
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L3.8 P36.0 F12.8
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1

Bandwidth	1144 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*

flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170719\BP_grase_clean_VASO_V04_pF58_V250

TA: 1:00   PAT: Off   Voxel size: 0.8×0.8×0.8 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	L3.8 P36.0 F12.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	3000 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1880 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	L5.4 P36.0 H20.9
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L3.8 P36.0 F12.8
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1

Bandwidth	1144 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASE_VASO_InnerVolume_20170719\BP_grase_clean_VASO_V04_pF58_V250

TA: 2:00   PAT: Off   Voxel size: 0.8×0.8×0.8 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V04

Properties

Prio Recon	Off
Before measurement	
After measurement	
Load to viewer	On
Inline movie	Off
Auto store images	On
Load to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	L3.8 P36.0 F12.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	130 mm
FoV phase	30.9 %
Slice thickness	0.8 mm
TR	6000 ms
TE	59.78 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1880 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s
Multiple series	Off

Resolution

Base resolution	162
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	5/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

Geometry

Series	Interleaved
Sat. region 1	
Thickness	40 mm
Position	L5.4 P36.0 H20.9
Orientation	Coronal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	On
B4	On
M3	On
V32	Off
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
! Ref. amplitude 1H	250.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L3.8 P36.0 F12.8
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	41 mm
F >> H	7 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1

Bandwidth	1144 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	50
RF pulse type	Normal
Gradient mode	Fast*
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

Table of contents

```
\\USER
    Feinberglab
        Tanja
            GRASE_VASO_InnerVolume_20170615
                BP_grase_clean_VASO_V04_pF58_V250_TI1400
                BP_grase_clean_VASO_V04_pF58_V250_TI1200
                BP_grase_clean_VASO_V04_pF58_V250_TI1600
                BP_grase_clean_VASO_V04_pFoff_iPAT2x1_V170
                BP_grase_clean_VASO_V04_pFoff_iPAT2x1_V170
                BP_grase_clean_VASO_V04_pF58_V250_TI1400
                BP_grase_clean_VASO_V05
            GRASE_VASO_InnerVolume_20170629
                BP_grase_clean_VASO_V04_pF58_V250_TI830
                BP_grase_clean_VASO_V04_pF58_V250_TI880
                BP_grase_clean_VASO_V04_pF58_V250_TI780
                BP_grase_clean_VASO_V04_pFoff_GRAPPA2x1_V250_TI830
                BP_grase_clean_VASO_V04_pFoff_GRAPPA2x1_VASOoff_V250_TI830
                BP_grase_clean_VASO_V04_pFoff_GRAPPA1x1_VASOoff_V250_TI830
                BP_grase_clean_VASO_V04_pF58_GRAPPA1x1_VASOoff_V250_TI830
            GRASE_VASO_InnerVolume_20170719
                localizer_200V
                b1map_230V
                mp2rage_0.7mm_TR4500
                BP_grase_clean_VASO_V04_pF58_V250_TI1460_TR3000
                BP_grase_clean_VASO_V04_pF58_V250_TI1460_TR3000
                BP_grase_clean_VASO_V04_pF58_V250_TI1040_TR3000
                BP_grase_clean_VASO_V04_pF58_V250_TI1040_TR3000
                BP_grase_clean_VASO_V04_pF58_V250_TI1880_TR3000
                BP_grase_clean_VASO_V04_pF58_V250_TI1880_TR3000
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