

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171013\VASO_118_230V_tapping

TA: 2:44 PAT: 2 Voxel size: 0.7x0.7x1.8 mm Rel. SNR: 1.00 USER: VASO_118

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	50 %
Position	R41.0 P3.8 H20.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	30.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	10
FoV read	32.8 mm
FoV phase	300.0 %
Slice thickness	1.80 mm
TR	2000.00 ms
TE	24 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Perfusion mode	SS-SI VASO
T12	1200 ms
T11	50 ms
T11s	50 ms
Flip angle	30 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	82
Delay in TR	0 ms
Multiple series	Off
Perfusion mode	PICORE Q2T
Inversion time 1	50 ms
Saturation stop time	50 ms
Inversion time 2	1200.0 ms
Flow limit	100.0 cm/s

Resolution

Base resolution	44
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8
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
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Ascending
Special sat.	Parallel F
Gap	25.0 mm
Thickness	100 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	Sum of Squares
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	R41.0 P3.8 H20.2
Orientation	Transversal
Rotation	120.00 deg
A >> P	99 mm
R >> L	33 mm
F >> H	18 mm

Physio

1st Signal/Mode	None
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BOLD

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Bandwidth	1042 Hz/Px
Free echo spacing	Off

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Echo spacing	1.08 ms
EPI factor	132
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slab-sel.
RF spoiling	On
Ampl	100
BWDTH	150 3.1kHz
ph.skip 4 Robert (the one)	30
use Ernst angle	Off
Maxwell Correction	Off
log physio files	Off
FFT scale	1.00
dummy prepscan time	3 s
z shim	0.00 mT/m*ms
RF duration	2560 us
RF BWTP	5.2
Renzo: Delta TI	73 ms
EFFECTIVE TR	20000 ms
PatPartitions	10
EPI phase correction	local
PAT refscan mode	segm LIN->PAR
use CAIPI	Off

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171013\BP_grase_clean_VASO_V07_func_10132017

TA: 5:24 PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	40.3 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	130
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	L0.0 P0.0 H18.2
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 P0.0 H18.2
Orientation	Transversal
Rotation	0.00 deg
R >> L	150 mm
A >> P	37 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1374 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

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

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\\USER\Feinberglab\Tanja\20171013\BP_grase_clean_VASO_V08_func_10132017_1200

TA: 5:24 PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	41.2 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1200.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	130
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	L0.0 P0.0 H18.2
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 P0.0 H18.2
Orientation	Transversal
Rotation	0.00 deg
R >> L	150 mm
A >> P	37 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1098 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

Phase skip	30
Ampl	100
BWDTH	300 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	30

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171013\BP_grase_clean_VASO_V07_TI200_10132017

TA: 4.0 s PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	34.8 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	200 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	130
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	L0.0 P0.0 H18.2

Orientation
Special sat. Coronal
None

Table position
Table position H
Inline Composing 0 mm
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 L0.0 P0.0 H18.2
Orientation Transversal
Rotation 0.00 deg
R >> L 150 mm
A >> P 37 mm
F >> H 8 mm

Physio

1st Signal/Mode None

Composing

Sequence

Introduction Off
Dimension 3D
Reordering Centric
Contrasts 2
Bandwidth 1424 Hz/Px
Echo spacing 0.8 ms
Turbo factor 5
EPI factor 32
RF pulse type Normal
Gradient mode Fast
flip angle excit 90
phase encoding ON
Maxwell compensation Off
ICE program single
prepscans 0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171013\BP_grase_clean_VASO_V07_TI700_10132017

TA: 4.0 s PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	34.8 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	700 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	130
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	L0.0 P0.0 H18.2

Orientation
Special sat. Coronal
None

Table position
Table position H
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	L0.0 P0.0 H18.2
Orientation	Transversal
Rotation	0.00 deg
R >> L	150 mm
A >> P	37 mm
F >> H	8 mm

Physio

1st Signal/Mode None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1424 Hz/Px
Echo spacing	0.8 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prep scans	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171013\BP_grase_clean_VASO_V07_TI1000_10132017

TA: 4.0 s PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	34.8 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1000 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	130
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	L0.0 P0.0 H18.2

Orientation
Special sat. Coronal
None

Table position
Table position
Inline Composing
H
0 mm
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 L0.0 P0.0 H18.2
Orientation Transversal
Rotation 0.00 deg
R >> L 150 mm
A >> P 37 mm
F >> H 8 mm

Physio

1st Signal/Mode None

Composing

Sequence

Introduction Off
Dimension 3D
Reordering Centric
Contrasts 2
Bandwidth 1424 Hz/Px
Echo spacing 0.8 ms
Turbo factor 5
EPI factor 32
RF pulse type Normal
Gradient mode Fast
flip angle excit 90
phase encoding ON
Maxwell compensation Off
ICE program single
prepscans 0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171013\BP_grase_clean_VASO_V07_TI1400_10132017

TA: 4.0 s PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	34.8 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	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	130
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	L0.0 P0.0 H18.2

Orientation
Special sat. Coronal
None

Table position
Table position
Inline Composing
H
0 mm
Off

System

T1 On
M2 On
B4 On
M3 On
V32 Off
Positioning mode
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 L0.0 P0.0 H18.2
Orientation Transversal
Rotation 0.00 deg
R >> L 150 mm
A >> P 37 mm
F >> H 8 mm

Physio

1st Signal/Mode None

Composing

Sequence

Introduction Off
Dimension 3D
Reordering Centric
Contrasts 2
Bandwidth 1424 Hz/Px
Echo spacing 0.8 ms
Turbo factor 5
EPI factor 32
RF pulse type Normal
Gradient mode Fast
flip angle excit 90
phase encoding ON
Maxwell compensation Off
ICE program single
prepscans 0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171013\AV_ep2d_bold_sd1ipat2mb2_1mm_tSNR_shimWholeVol

TA: 1:01 PAT: 2 Voxel size: 1.0x1.0x1.1 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	44
Dist. factor	0 %
Position	R6.0 A6.3 F32.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	172 mm
FoV phase	100.0 %
Slice thickness	1.05 mm
TR	1500 ms
TE	20.0 ms
Multi-band accel. factor	2
Filter	None
Coil elements	L1-8

Contrast

MTC	Off
Magn. preparation	None
Flip angle	55 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	164
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	56
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat. None

Table position	H
Table position	0 mm
Inline Composing	Off

System

L1	On
L2	On
L3	On
L4	On
L5	On
L6	On
L7	On
L8	On
Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	On
Assume Silicone	Off
! Ref. amplitude 1H	120.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R6.0 A6.3 F32.8
! Orientation	Transversal
! Rotation	0.00 deg
! R >> L	172 mm
! A >> P	172 mm
! F >> H	45 mm

Physio

1st Signal/Mode	None
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BOLD

GLM Statistics	Off
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	20
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active

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Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1452 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	0.83 ms
SIR accel. factor	1
EPI factor	164
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.20
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171023\BP_grase_clean_VASO_V07_TI200_10132017

TA: 4.0 s PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	34.8 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	200 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	130
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	L0.0 P0.0 H18.2

Orientation
Special sat. Coronal
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 P0.0 H18.2
Orientation	Transversal
Rotation	0.00 deg
R >> L	150 mm
A >> P	37 mm
F >> H	8 mm

Physio

1st Signal/Mode None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1424 Hz/Px
Echo spacing	0.8 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prep scans	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171023\BP_grase_clean_VASO_V07_TI500_10132017

TA: 4.0 s PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	34.8 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	500 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	130
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	L0.0 P0.0 H18.2

Orientation

Special sat. Coronal

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	L0.0 P0.0 H18.2
Orientation	Transversal
Rotation	0.00 deg
R >> L	150 mm
A >> P	37 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1424 Hz/Px
Echo spacing	0.8 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prep scans	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171023\BP_grase_clean_VASO_V07_TI700_10132017

TA: 4.0 s PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	34.8 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	700 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	130
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	L0.0 P0.0 H18.2

Orientation
Special sat. Coronal
None

Table position
Table position H
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 L0.0 P0.0 H18.2
Orientation Transversal
Rotation 0.00 deg
R >> L 150 mm
A >> P 37 mm
F >> H 8 mm

Physio

1st Signal/Mode None

Composing

Sequence

Introduction Off
Dimension 3D
Reordering Centric
Contrasts 2
Bandwidth 1424 Hz/Px
Echo spacing 0.8 ms
Turbo factor 5
EPI factor 32
RF pulse type Normal
Gradient mode Fast
flip angle excit 90
phase encoding ON
Maxwell compensation Off
ICE program single
prepscans 0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171023\BP_grase_clean_VASO_V07_TI1000_10132017

TA: 4.0 s PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	34.8 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1000 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	130
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	L0.0 P0.0 H18.2

Orientation
Special sat. Coronal
None

Table position
Table position H
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 L0.0 P0.0 H18.2
Orientation Transversal
Rotation 0.00 deg
R >> L 150 mm
A >> P 37 mm
F >> H 8 mm

Physio

1st Signal/Mode None

Composing

Sequence

Introduction Off
Dimension 3D
Reordering Centric
Contrasts 2
Bandwidth 1424 Hz/Px
Echo spacing 0.8 ms

Turbo factor 5
EPI factor 32
RF pulse type Normal
Gradient mode Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171023\BP_grase_clean_VASO_V07_T11200_10132017

TA: 4.0 s PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	34.8 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1200 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	130
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	L0.0 P0.0 H18.2

Orientation
Special sat. Coronal
None

Table position
Table position H
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 L0.0 P0.0 H18.2
Orientation Transversal
Rotation 0.00 deg
R >> L 150 mm
A >> P 37 mm
F >> H 8 mm

Physio

1st Signal/Mode None

Composing

Sequence

Introduction Off
Dimension 3D
Reordering Centric
Contrasts 2
Bandwidth 1424 Hz/Px
Echo spacing 0.8 ms
Turbo factor 5
EPI factor 32
RF pulse type Normal
Gradient mode Fast
flip angle excit 90
phase encoding ON
Maxwell compensation Off
ICE program single
prepscans 0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171023\BP_grase_clean_VASO_V07_TI1400_10132017

TA: 4.0 s PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	34.8 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	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	130
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	L0.0 P0.0 H18.2

Orientation
Special sat. Coronal
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 P0.0 H18.2
Orientation	Transversal
Rotation	0.00 deg
R >> L	150 mm
A >> P	37 mm
F >> H	8 mm

Physio

1st Signal/Mode None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1424 Hz/Px
Echo spacing	0.8 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171023\AV_ep2d_bold_sd1ipat2mb2_1mm_tSNR_shimWholeVol

TA: 5:55 PAT: 2 Voxel size: 1.0x1.0x1.1 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	44
Dist. factor	0 %
Position	L3.5 A35.9 H36.1
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	172 mm
FoV phase	100.0 %
Slice thickness	1.05 mm
TR	2000 ms
TE	20.0 ms
Multi-band accel. factor	2
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	55 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	162
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	164
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	56
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

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
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	On
Assume Silicone	Off
! Ref. amplitude 1H	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L3.5 A35.9 H36.1
Orientation	Transversal
Rotation	0.00 deg
R >> L	172 mm
A >> P	172 mm
F >> H	47 mm

Physio

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

BOLD

GLM Statistics	On
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	16
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Active
Meas[10]	Active
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1452 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	0.83 ms
<hr/>	
SIR accel. factor	1
EPI factor	164
Gradient mode	Normal
RF spoiling	Off
<hr/>	
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.20
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171023\BP_grase_clean_VASO_V07_func_10132017

TA: 5:24 PAT: Off Voxel size: 0.8x0.8x0.8 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	L0.8 A12.2 H37.8
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	37.0 %
Slice thickness	0.8 mm
TR	4000 ms
TE	69.6 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	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	L0.8 A12.2 H37.8
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	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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.8 A12.2 H37.8
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	49 mm
F >> H	7 mm

Physio

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

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1342 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	60
RF pulse type	Normal
Gradient mode	Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171023\BP_grase_clean_VASO_V08_func_10132017_1200

TA: 5:24 PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_101320

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	L0.8 A12.2 H37.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	41.2 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1200.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	130
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	L0.8 A12.2 H37.8
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.8 A12.2 H37.8
Orientation	Transversal
Rotation	0.00 deg
R >> L	150 mm
A >> P	37 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1098 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
Phase skip	30
Ampl	100
BWDTH	300 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	30

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171031\AV_ep2d_bold_sd1ipat2mb2_1mm_tSNR_shimWholeVol

TA: 5:55 PAT: 2 Voxel size: 1.0x1.0x1.1 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	44
Dist. factor	0 %
Position	R1.2 A28.5 H28.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	172 mm
FoV phase	100.0 %
Slice thickness	1.05 mm
TR	2000 ms
TE	20.0 ms
Multi-band accel. factor	2
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	55 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	162
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	164
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	56
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

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
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	On
Assume Silicone	Off
! Ref. amplitude 1H	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R1.2 A28.5 H28.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	172 mm
A >> P	172 mm
F >> H	47 mm

Physio

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

BOLD

GLM Statistics	On
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	16
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Active
Meas[10]	Active
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1452 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	0.83 ms
<hr/>	
SIR accel. factor	1
EPI factor	164
Gradient mode	Normal
RF spoiling	Off
<hr/>	
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.20
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171031\BP_grase_clean_VASO_V07_func_10132017

TA: 5:24 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	R1.3 A12.2 H25.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	162 mm
FoV phase	37.0 %
Slice thickness	1.0 mm
TR	4000 ms
TE	69.4 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	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	60 mm

Position	R2.0 A12.2 F12.1
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R1.3 A12.2 H25.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	162 mm
A >> P	60 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1342 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	60
RF pulse type	Normal
Gradient mode	Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171031\ep2d_fid_VASO

TA: 5:36 PAT: 2 Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: ep2d_fid_VASO

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	1
Dist. factor	50 %
Position	R0.6 A30.4 H25.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.0 mm
TR	4000.0 ms
TE 1	21 ms
TE 2	21 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	90 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	192
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode Interleaved
Series Interleaved

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 Sum of Squares
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 R0.6 A30.4 H25.6
Orientation Transversal
Rotation 0.00 deg
R >> L 192 mm
A >> P 192 mm
F >> H 1 mm

Physio

1st Signal/Mode None

Perf

GBP Off
PBP Off
TTP Off
Original images On

Sequence

Introduction Off
Contrasts 2
Bandwidth 1132 Hz/Px
Free echo spacing Off
Echo spacing 1 ms
EPI factor 192
RF pulse type Fast
Gradient mode Fast

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171103\AV_ep2d_bold_sd1ipat2mb2_1mm_tSNR_shimWholeVol

TA: 5:55 PAT: 2 Voxel size: 1.0x1.0x1.1 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	44
Dist. factor	0 %
Position	R1.2 A35.3 H29.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	172 mm
FoV phase	100.0 %
Slice thickness	1.05 mm
TR	2000 ms
TE	20.0 ms
Multi-band accel. factor	2
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	55 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	162
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	164
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	56
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

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
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	On
Assume Silicone	Off
! Ref. amplitude 1H	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R1.2 A35.3 H29.3
Orientation	Transversal
Rotation	0.00 deg
R >> L	172 mm
A >> P	172 mm
F >> H	47 mm

Physio

1st Signal/Mode	None
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BOLD

GLM Statistics	On
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	16
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Active
Meas[10]	Active
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1452 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	0.83 ms
<hr/>	
SIR accel. factor	1
EPI factor	164
Gradient mode	Normal
RF spoiling	Off
<hr/>	
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.20
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171103\BP_grase_clean_VASO_V07_func_1.2x1.2x1

TA: 5:24 PAT: Off Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	R1.3 A17.7 H30.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	150 mm
FoV phase	24.6 %
Slice thickness	1.0 mm
TR	4000 ms
TE	40.3 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	130
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	L0.0 A17.7 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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R1.3 A17.7 H30.4
Orientation	Transversal
Rotation	0.00 deg
R >> L	150 mm
A >> P	37 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1374 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171103\ep2d_fid_VASO_1iso

TA: 5:36 PAT: 2 Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: ep2d_fid_VASO

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	1
Dist. factor	50 %
Position	R1.3 A29.0 H30.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.0 mm
TR	4000.0 ms
TE 1	21 ms
TE 2	21 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	90 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	192
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode Interleaved
Series Interleaved

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 Sum of Squares
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 R1.3 A29.0 H30.4
Orientation Transversal
Rotation 0.00 deg
R >> L 192 mm
A >> P 192 mm
F >> H 1 mm

Physio

1st Signal/Mode None

Perf

GBP Off
PBP Off
TTP Off
Original images On

Sequence

Introduction Off
Contrasts 2
Bandwidth 1132 Hz/Px
Free echo spacing Off
Echo spacing 1 ms

EPI factor 192
RF pulse type Fast
Gradient mode Fast

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171103\ep2d_fid_VASO-1.2x1.2x1

TA: 5:36 PAT: 2 Voxel size: 1.2x1.2x1.0 mm Rel. SNR: 1.00 USER: ep2d_fid_VASO

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	1
Dist. factor	50 %
Position	R1.3 A29.0 H30.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	191 mm
FoV phase	100.0 %
Slice thickness	1.0 mm
TR	4000.0 ms
TE 1	21 ms
TE 2	21 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	90 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	166
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode Interleaved
Series Interleaved

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 Sum of Squares
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 R1.3 A29.0 H30.4
Orientation Transversal
Rotation 0.00 deg
R >> L 191 mm
A >> P 191 mm
F >> H 1 mm

Physio

1st Signal/Mode None

Perf

GBP Off
PBP Off
TTP Off
Original images On

Sequence

Introduction Off
Contrasts 2
Bandwidth 1204 Hz/Px
Free echo spacing Off
Echo spacing 1 ms
EPI factor 166
RF pulse type Fast
Gradient mode Fast

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171103\BP_grase_clean_VASO_V07_func_0.8iso

TA: 5:24 PAT: Off Voxel size: 0.8x0.8x0.8 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	R1.3 A17.7 H30.4
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	20.3 %
Slice thickness	0.8 mm
TR	4000 ms
TE	41.6 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	158
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	28 mm

Position	L0.0 A17.7 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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R1.3 A17.7 H30.4
Orientation	Transversal
Rotation	0.00 deg
R >> L	130 mm
A >> P	27 mm
F >> H	7 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1172 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171107_ismrm\AV_ep2d_bold_sd1ipat2mb2_1mm_tSNR_shimWholeVol

TA: 5:56 PAT: 2 Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	44
Dist. factor	0 %
Position	R4.6 A29.2 H29.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	164 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
TR	2000 ms
TE	22.9 ms
Multi-band accel. factor	2
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	55 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	162
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	164
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	56
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

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
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	On
Assume Silicone	Off
! Ref. amplitude 1H	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.6 A29.2 H29.3
Orientation	Transversal
Rotation	0.00 deg
R >> L	164 mm
A >> P	164 mm
F >> H	44 mm

Physio

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

BOLD

GLM Statistics	On
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	16
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Active
Meas[10]	Active
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1452 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1 ms
<hr/>	
SIR accel. factor	1
EPI factor	164
Gradient mode	Normal
RF spoiling	Off
<hr/>	
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.20
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171107_ismrm\BP_grase_clean_VASO_V07_func_0.8iso

TA: 5:24 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	R0.5 A5.4 H23.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	4000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	28 mm

Position	L0.8 A5.4 F6.7
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.5 A5.4 H23.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171107_ismrm\ep2d_fid_VASO_1iso

TA: 5:36 PAT: 2 Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: ep2d_fid_VASO

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	1
Dist. factor	50 %
Position	R6.9 A20.9 H25.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.0 mm
TR	4000.0 ms
TE 1	21 ms
TE 2	21 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	90 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	192
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode Interleaved
Series Interleaved

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 Sum of Squares
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 R6.9 A20.9 H25.0
Orientation Transversal
Rotation 0.00 deg
R >> L 192 mm
A >> P 192 mm
F >> H 1 mm

Physio

1st Signal/Mode None

Perf

GBP Off
PBP Off
TTP Off
Original images On

Sequence

Introduction Off
Contrasts 2
Bandwidth 1132 Hz/Px
Free echo spacing Off
Echo spacing 1 ms
EPI factor 192
RF pulse type Fast
Gradient mode Fast

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\AV_ep2d_bold_sd1ipat2mb2_1mm_tSNR_shimWholeVol
TA: 5:55 PAT: 2 Voxel size: 1.1x1.1x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	44
Dist. factor	0 %
Position	R4.6 A29.2 H29.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	164 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	2000 ms
TE	23.2 ms
Multi-band accel. factor	2
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	55 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	162
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	150
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	56
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

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
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	On
Assume Silicone	Off
! Ref. amplitude 1H	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.6 A29.2 H29.3
Orientation	Transversal
Rotation	0.00 deg
R >> L	164 mm
A >> P	164 mm
F >> H	66 mm

Physio

1st Signal/Mode	None
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BOLD

GLM Statistics	On
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	16
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Active
Meas[10]	Active
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1076 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1.05 ms
<hr/>	
SIR accel. factor	1
EPI factor	150
Gradient mode	Normal
RF spoiling	Off
<hr/>	
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.20
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\BP_grase_clean_VASO_V07_func

TA: 5:24 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	R0.5 A5.4 H23.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	4000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	L0.8 A5.4 F6.7
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.5 A5.4 H23.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

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

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\BP_grase_clean_VASO_V08_func_TR4000

TA: 5:24 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	4000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1100.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	L0.0 P0.0 H18.2
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 P0.0 H18.2
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

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

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

Phase skip	30
Ampl	100
BWDTH	200 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	30

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\BP_grase_clean_VASO_V08_func_TR3000

TA: 4:03 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_101320

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	L0.0 P0.0 H18.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	3000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1100.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	L0.0 P0.0 H18.2
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 P0.0 H18.2
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

Phase skip	30
Ampl	100
BWDTH	200 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	30

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\BP_grase_clean_VASO_V07_func

TA: 5:24 PAT: Off Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	R0.5 A5.4 H23.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	192 mm
FoV phase	25.0 %
Slice thickness	1.5 mm
TR	4000 ms
TE	40.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	L0.8 A5.4 F6.7
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.5 A5.4 H23.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	192 mm
A >> P	48 mm
F >> H	12 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\ep2d_fid_VASO-1.2x1.2x1

TA: 5:36 PAT: 2 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: ep2d_fid_VASO

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	1
Dist. factor	50 %
Position	R1.3 A29.0 H30.4
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	1.5 mm
TR	4000.0 ms
TE 1	21 ms
TE 2	21 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	90 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	166
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Reference scan mode	Separate
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode Interleaved
Series Interleaved

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	Sum of Squares
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	R1.3 A29.0 H30.4
Orientation	Transversal
Rotation	0.00 deg
R >> L	250 mm
A >> P	250 mm
F >> H	2 mm

Physio

1st Signal/Mode None

Perf

GBP	Off
PBP	Off
TTP	Off
Original images	On

Sequence

Introduction	Off
Contrasts	2
Bandwidth	1204 Hz/Px
Free echo spacing	Off
Echo spacing	1 ms
EPI factor	166
RF pulse type	Fast
Gradient mode	Fast

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\BP_grase_clean_VASO_V08_func_TR3000

TA: 4:03 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_101320

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	R0.8 A15.8 H22.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	3000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1100.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	R0.8 A15.8 H22.3
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.8 A15.8 H22.3
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

Phase skip	30
Ampl	100
BWDTH	200 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	30

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\BP_grase_clean_VASO_V08_func_T11200_TR3000

TA: 4:03 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_101320

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	R0.8 A15.8 H22.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	3000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1200.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	R0.8 A15.8 H22.3
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.8 A15.8 H22.3
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

Phase skip	30
Ampl	100
BWDTH	200 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	30

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\BP_grase_clean_VASO_V08_func_T11000_TR3000

TA: 4:03 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_101320

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	R0.8 A15.8 H22.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	3000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1000.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	R0.8 A15.8 H22.3
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.8 A15.8 H22.3
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

Phase skip	30
Ampl	100
BWDTH	200 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	30

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOC\BP_grase_clean_VASO_V08_func_TI900_TR3000

TA: 4:03 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_101320

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	R0.8 A15.8 H22.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	3000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	900.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	R0.8 A15.8 H22.3
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.8 A15.8 H22.3
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

Phase skip	30
Ampl	100
BWDTH	200 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	30

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOC\BP_grase_clean_VASO_V08_func_TI700_TR3000

TA: 4:03 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_101320

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	R0.8 A15.8 H22.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	3000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	700.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	R0.8 A15.8 H22.3
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.8 A15.8 H22.3
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

Phase skip	30
Ampl	100
BWDTH	200 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	30

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\BP_grase_clean_VASO_V08_func_SNRboost

TA: 12:30 PAT: Off Voxel size: 1.0x1.0x1.5 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_10132

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	R0.8 A15.8 H22.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.5 mm
TR	3000 ms
TE	40.9 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1100.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	250
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	R0.8 A15.8 H22.3
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.8 A15.8 H22.3
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	12 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

Phase skip	30
Ampl	100
BWDTH	200 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	30

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\AV_ep2d_bold_sd1ipat2mb2_1mm_tSNR_shimWholeVol
TA: 5:55 PAT: 2 Voxel size: 1.1x1.1x1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	44
Dist. factor	0 %
Position	R4.6 A29.2 H29.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	164 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	2000 ms
TE	23.2 ms
Multi-band accel. factor	2
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	55 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	162
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	150
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	56
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

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
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	On
Assume Silicone	Off
! Ref. amplitude 1H	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.6 A29.2 H29.3
Orientation	Transversal
Rotation	0.00 deg
R >> L	164 mm
A >> P	164 mm
F >> H	66 mm

Physio

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

BOLD

GLM Statistics	On
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	16
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Active
Meas[10]	Active
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1076 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1.05 ms
<hr/>	
SIR accel. factor	1
EPI factor	150
Gradient mode	Normal
RF spoiling	Off
<hr/>	
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.20
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\localizer_200V

TA: 0:16 PAT: 2 Voxel size: 1.2x1.1x3.0 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

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

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

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

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
-----------------	-----

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
<hr/>	
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
<hr/>	
MapIt	None
Contrasts	1

Sequence

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\b1map_230V

TA: 1:09

Voxel size: 3.9x3.9x5.0 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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\AV_ep2d_bold_sd1ipat2mb2_1mm_tSNR_shimWholeVol
TA: 5:56 PAT: 2 Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

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	44
Dist. factor	0 %
Position	R4.6 A29.2 H29.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	150 mm
FoV phase	100.0 %
Slice thickness	1.00 mm
TR	2000 ms
TE	24.2 ms
Multi-band accel. factor	2
Filter	None
Coil elements	B4;M2,3;T1

Contrast

MTC	Off
Magn. preparation	None
Flip angle	55 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	162
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	150
Phase resolution	100 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	56
Reference scan mode	GRE
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

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
Coil Combine Mode	Sum of Squares
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	On
Assume Silicone	Off
! Ref. amplitude 1H	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R4.6 A29.2 H29.3
Orientation	Transversal
Rotation	0.00 deg
R >> L	150 mm
A >> P	150 mm
F >> H	44 mm

Physio

1st Signal/Mode	None
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BOLD

GLM Statistics	On
Dynamic t-maps	Off
Starting ignore meas	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	16
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Active
Meas[10]	Active
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Introduction	Off
Bandwidth	1076 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1.07 ms
<hr/>	
SIR accel. factor	1
EPI factor	150
Gradient mode	Normal
RF spoiling	Off
<hr/>	
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.20
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\BP_grase_clean_VASO_V07_TI1450

TA: 5:24 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	R0.5 A5.4 H23.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	4000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1450 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	L0.8 A5.4 F6.7
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.5 A5.4 H23.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

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

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\BP_grase_clean_VASO_V07_TI1250

TA: 5:24 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	R0.5 A5.4 H23.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	4000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1250 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	L0.8 A5.4 F6.7
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.5 A5.4 H23.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOCI\BP_grase_clean_VASO_V07_TI1050

TA: 5:24 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	R0.5 A5.4 H23.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	4000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1050 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	L0.8 A5.4 F6.7
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.5 A5.4 H23.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOC\BP_grase_clean_VASO_V07_TI850

TA: 5:24 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_101320

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	R0.5 A5.4 H23.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	4000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	850 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	81
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	L0.8 A5.4 F6.7
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.5 A5.4 H23.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

1st Signal/Mode	None
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Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171120_FOC\BP_grase_clean_VASO_V07_SNRboost

TA: 16:40 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V07_10132

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	R0.5 A5.4 H23.6
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	4000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
T1	1450 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	250
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	128
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	32 mm

Position	L0.8 A5.4 F6.7
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.5 A5.4 H23.6
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

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

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171204_fociTest\grase_VASO_V08_TI37_PS30_TR10000

TA: 0:50 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_101320

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	R0.8 A15.8 H22.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	10000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	37.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	5
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
Multiple series	Off

Resolution

Base resolution	128
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	32 mm
Position	R0.8 A15.8 H22.3
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.8 A15.8 H22.3
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

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

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

Phase skip	30
Ampl	100
BWDTH	200 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	30

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171204_fociTest\grase_VASO_V08_TI37_PS60_TR10000

TA: 0:50 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_101320

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	R0.8 A15.8 H22.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	10000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	37.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	5
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
Multiple series	Off

Resolution

Base resolution	128
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	32 mm
Position	R0.8 A15.8 H22.3
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	R0.8 A15.8 H22.3
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

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

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

Phase skip	60
Ampl	100
BWDTH	200 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	60

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171204_fociTest\grase_VASO_V08_TI200_PS30_TR10000

TA: 0:50 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_101320

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	L0.6 P7.2 H2.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	10000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	200.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	5
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
Multiple series	Off

Resolution

Base resolution	128
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	32 mm
Position	L0.6 P7.2 H2.8
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	200.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.6 P7.2 H2.8
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

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

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

Phase skip	30
Ampl	100
BWDTH	200 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	30

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER\Feinberglab\Tanja\20171204_fociTest\grase_VASO_V08_TI200_PS60_TR10000

TA: 0:50 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP_grase_clean_VASO_V08_101320

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	L0.6 P7.2 H2.8
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	128 mm
FoV phase	25.0 %
Slice thickness	1.0 mm
TR	10000 ms
TE	41.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	200.0 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	5
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
Multiple series	Off

Resolution

Base resolution	128
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	32 mm
Position	L0.6 P7.2 H2.8
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	230.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.6 P7.2 H2.8
Orientation	Transversal
Rotation	0.00 deg
R >> L	128 mm
A >> P	32 mm
F >> H	8 mm

Physio

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

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1148 Hz/Px
Echo spacing	1 ms

Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast

Phase skip	60
Ampl	100
BWDTH	200 3.1kHz
thickness	100
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
Phase skip	60

Table of contents

\\USER

Feinberglab

Tanja

20171013

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 BP_grase_clean_VASO_V08_func_10132017_1200
 BP_grase_clean_VASO_V07_Tl200_10132017
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 BP_grase_clean_VASO_V07_Tl1000_10132017
 BP_grase_clean_VASO_V07_Tl1200_10132017
 BP_grase_clean_VASO_V07_Tl1400_10132017
 AV_ep2d_bold_sd1ipat2mb2_1mm_tSNR_shimWholeVol
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 BP_grase_clean_VASO_V07_func_10132017
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20171103

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AV_ep2d_bold_sd1ipat2mb2_1mm_tSNR_shimWholeVol
 BP_grase_clean_VASO_V07_func_0.8iso
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 BP_grase_clean_VASO_V07_func
 BP_grase_clean_VASO_V08_func_TR4000
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--- 20171129 ---

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--- 20171205 ---

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 ----- 20171214 -----

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 BP_grase_clean_VASO_V07_Tl850
 BP_grase_clean_VASO_V07_SNRboost

20171204_fociTest

grase_VASO_V08_Tl37_PS30_TR10000

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B17

\\USER

Feinberglab

Tanja

20171204_fociTest

grase_VASO_V08_TI37_PS60_TR10000

grase_VASO_V08_TI200_PS30_TR10000

grase_VASO_V08_TI200_PS60_TR10000