\\USER\Feinberglab\Tanja\Renzo_Playground\VASO_121				
TA: 0:10	PAT: Off	Voxel size: 9.4×4.7×1.0 mm	Rel. SNR: 1.00	USER: VASO_121

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	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	32
FoV read	300.0 mm
FoV phase	200.0 %
Slice thickness	1.00 mm
TR	5000.00 ms
TE	52 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	T1

Contrast

Perfusion mode	SS-SI VASO
TI2	1100 ms
TI1	50 ms
TI1s	50 ms
Flip angle	90 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	2
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	1100.0 ms
Flow limit	100 cm/s

Resolution

Base resolution	64
Phase resolution	50 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None

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	Off
B4	Off
M3	Off
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	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	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
A >> P	600 mm
R >> L	300 mm
F >> H	32 mm

Physio

1st Signal/Mode	None

BOLD

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Bandwidth	752 Hz/Px
Free echo spacing	Off
Echo spacing	1.4 ms
EPI factor	64
RF pulse type	Normal
Gradient mode	Fast
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	102 ms
EFFECTIVE TR	160000 ms
PatPartitions	32
EPI phase correction	local

\\USER\Feinberglab\Tanja\Renzo_Playground\VASO_116_orig

TA: 0:10   PAT: Off   Voxel size: 20.7×6.8×1.0 mm   Rel. SNR: 1.00   USER: VASO_116

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	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	300.0 mm
FoV phase	300.0 %
Slice thickness	1.00 mm
TR	5000.00 ms
TE	52 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	T1

Contrast

Perfusion mode	Picore Q2TIPS
TI2	1100 ms
TI1	50 ms
TI1s	50 ms
Flip angle	90 deg
Fat suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	2
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	1100.0 ms
Flow limit	100.0 cm/s

Resolution

Base resolution	44
Phase resolution	33 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None

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	Off
B4	Off
M3	Off
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	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	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
A >> P	900 mm
R >> L	300 mm
F >> H	8 mm

Physio

1st Signal/Mode	None

BOLD

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Bandwidth	752 Hz/Px
Free echo spacing	Off
Echo spacing	1.43 ms
EPI factor	44
RF pulse type	Normal
Gradient mode	Fast
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	88 ms
EFFECTIVE TR	40000 ms
PatPartitions	8
EPI phase correction	local

\\USER\Feinberglab\Tanja\Renzo_Playground\VASO_116_phantom

TA: 7.5 s   PAT: 2   Voxel size: 0.7×0.7×1.5 mm   Rel. SNR: 1.00   USER: VASO_116

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	R36.4 P0.0 H40.5
Orientation	T > S31.0
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	32.8 mm
FoV phase	300.0 %
Slice thickness	1.50 mm
TR	1500.00 ms
TE	24 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Perfusion mode	Picore Q2TIPS
TI2	900 ms
TI1	50 ms
TI1s	50 ms
Flip angle	90 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	5
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	900.0 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	36
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	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
! Position	R31.0 A24.3 H24.3
! Orientation	T > S-0.4
! Rotation	180.00 deg
! R >> L	99 mm
! A >> P	82 mm
! F >> H	78 mm

Physio

1st Signal/Mode	None

BOLD

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Bandwidth	1062 Hz/Px
Free echo spacing	Off

Echo spacing	1.07 ms

EPI factor	132
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slab-sel.
RF spoiling	On

Ampl	120
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	25.0
Renzo: Delta TI	71 ms
EFFECTIVE TR	12000 ms
PatPartitions	8
EPI phase correction	local
PAT refscan mode	segm LIN->PAR
use CAIPI	Off

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_PhSk338_2rep_V230

TA: 6.0 s   PAT: Off   Voxel size: 0.7×0.7×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10

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	R29.1 A11.5 H23.0
Orientation	T > S28.5
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.0 %
Slice thickness	1.5 mm
TR	3000 ms
TE	45.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1100 ms
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	2
Pause after meas. 1	0.0 s
Multiple series	Off

Resolution

Base resolution	126
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	L1.1 A3.0 H0.5
Orientation	C > S20.0 > T8.1
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	R29.1 A11.5 H23.0
Orientation	T > S28.5
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1102 Hz/Px
Echo spacing	1.1 ms
Turbo factor	5
EPI factor	34
RF pulse type	Normal
Gradient mode	Fast*
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR7680
TA: 3.0 s   PAT: Off   Voxel size: 0.7×0.7×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR7680

Properties

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

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	28.6 %
Slice thickness	1.5 mm
TR	3000 ms
TE	44.5 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	T1

Contrast

Magn. preparation	Non-sel. IR
TI	1100 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	126
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	66 mm
Position	Isocenter
Orientation	Transversal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

T1	On
M2	Off
B4	Off
M3	Off
V32	Off
Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Adaptive Combine
AutoAlign	---
Auto Coil Select	Default
Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
? Ref. amplitude 1H	0.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	94 mm
A >> P	27 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1168 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	36
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_test

TA: 3.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R29.1 A11.5 H23.0
Orientation	T > S28.5
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	3000 ms
TE	42.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1200 ms
Flip angle	160 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L1.1 A3.0 H0.5
Orientation	C > S20.0 > T8.1
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	R29.1 A11.5 H23.0
Orientation	T > S28.5
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1086 Hz/Px
Echo spacing	1.1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_func

TA: 12:00   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400(

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	R34.7 A19.5 H32.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	3000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1100 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	240
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	118
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	L2.1 A5.8 H0.0
Orientation	C > S20.0
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	R34.7 A19.5 H32.0
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\VASO_116_phantom

TA: 12:05   PAT: 2   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: VASO_116

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	R6.6 A8.4 H32.0
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	70.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	35.0 mm
FoV phase	300.0 %
Slice thickness	1.50 mm
TR	1500.00 ms
TE	24 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Perfusion mode	Picore Q2TIPS
TI2	900 ms
TI1	50 ms
TI1s	50 ms
Flip angle	26 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	483
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	900.0 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	36
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	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	R25.0 A24.3 H16.2
! Orientation	T > S-0.4
! Rotation	180.00 deg
! R >> L	84 mm
! A >> P	82 mm
! F >> H	66 mm

Physio

1st Signal/Mode	None

BOLD

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Bandwidth	1062 Hz/Px
Free echo spacing	Off

Echo spacing	1.07 ms

EPI factor	132
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slab-sel.
RF spoiling	On

Ampl	120
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	25.0
Renzo: Delta TI	71 ms
EFFECTIVE TR	12000 ms
PatPartitions	8
EPI phase correction	local
PAT refscan mode	Flash
FlashRef BaseRes	44
FlashRef BW	136 Hz/px
FlashRef TE	5000 us
FlashRef FA	5 deg
use CAIPI	Off

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R34.7 A19.5 H32.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	23 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L2.1 A5.8 H0.0
Orientation	C > S20.0
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	R34.7 A19.5 H32.0
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_func

TA: 12:00   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400(

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	R34.7 A19.5 H32.0
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	3000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1100 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	240
Pause after meas.	0.0 s
Multiple series	Off

Resolution

Base resolution	118
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	L2.1 A5.8 H0.0
Orientation	C > S20.0
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	R34.7 A19.5 H32.0
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\VASO_116_phantom

TA: 12:05   PAT: 2   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: VASO_116

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	R6.6 A8.4 H32.0
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	70.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	35.0 mm
FoV phase	300.0 %
Slice thickness	1.50 mm
TR	1500.00 ms
TE	24 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Perfusion mode	Picore Q2TIPS
TI2	900 ms
TI1	50 ms
TI1s	50 ms
Flip angle	26 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	483
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	900.0 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	36
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	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	R25.0 A24.3 H16.2
! Orientation	T > S-0.4
! Rotation	180.00 deg
! R >> L	84 mm
! A >> P	82 mm
! F >> H	66 mm

Physio

1st Signal/Mode	None

BOLD

Motion correction	Off
Spatial filter	Off

Sequence

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Bandwidth	1062 Hz/Px
Free echo spacing	Off

Echo spacing	1.07 ms

EPI factor	132
RF pulse type	Normal
Gradient mode	Normal
Excitation	Slab-sel.
RF spoiling	On

Ampl	120
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	25.0
Renzo: Delta TI	71 ms
EFFECTIVE TR	12000 ms
PatPartitions	8
EPI phase correction	local
PAT refscan mode	Flash
FlashRef BaseRes	44
FlashRef BW	136 Hz/px
FlashRef TE	5000 us
FlashRef FA	5 deg
use CAIPI	Off

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_23

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	23 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5
Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_100

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	100 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5
Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_300

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	300 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5

Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_500

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	500 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5
Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_600

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	600 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5
Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_700

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	700 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5
Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_800

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	800 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5
Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_900

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	900 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5
Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_1000

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1000 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5
Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_1200

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	Off
segments	
Auto open inline display	Off
Start measurement without	On
further preparation	
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1200 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5

Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_1400

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1400 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5
Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_1600

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1600 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5
Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_1800

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	Off
segments	
Auto open inline display	Off
Start measurement without	On
further preparation	
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	1800 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5
Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_2000

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	Off
segments	
Auto open inline display	Off
Start measurement without	On
further preparation	
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Dist. factor	0 %
Position	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	2000 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5

Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

\\USER\Feinberglab\Tanja\GRASEandRenzosEPI\BP_grase_clean_VASO_V10_IR6400_T1_2200

TA: 5.0 s   PAT: Off   Voxel size: 0.8×0.8×1.5 mm   Rel. SNR: 1.00   USER: BP_grase_clean_VASO_V10_IR6400

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	R32.8 A8.0 H18.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	-20.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	8
FoV read	94 mm
FoV phase	27.1 %
Slice thickness	1.5 mm
TR	5000 ms
TE	41.7 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

Contrast

Magn. preparation	Non-sel. IR
TI	2200 ms
Flip angle	165 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution

Base resolution	118
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	L4.0 P5.6 F13.5
Orientation	C > S20.0
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	R32.8 A8.0 H18.5
Orientation	Transversal
Rotation	-20.00 deg
R >> L	94 mm
A >> P	26 mm
F >> H	12 mm

Physio

1st Signal/Mode	None

Composing

Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	2
Bandwidth	1116 Hz/Px
Echo spacing	1 ms
Turbo factor	5
EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
IR-RF: 2nd segm phase	338
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0

Table of contents

```
\\USER
    Feinberglab
        Tanja
            Renzo_Playground
                VASO_121
                VASO_116_orig
                VASO_116_phantom
            GRASEandRenzosEPI
                BP_grase_clean_VASO_V10_PhSk338_2rep_V230
                BP_grase_clean_VASO_V10_IR7680
                BP_grase_clean_VASO_V10_IR6400_test
                ----------
                BP_grase_clean_VASO_V10_IR6400_func
                VASO_116_phantom
                --- 03082018 ---
                BP_grase_clean_VASO_V10_IR6400_T1
                BP_grase_clean_VASO_V10_IR6400_func
                VASO_116_phantom
                --T1 mapping
                BP_grase_clean_VASO_V10_IR6400_T1_23
                BP_grase_clean_VASO_V10_IR6400_T1_100
                BP_grase_clean_VASO_V10_IR6400_T1_300
                BP_grase_clean_VASO_V10_IR6400_T1_500
                BP_grase_clean_VASO_V10_IR6400_T1_600
                BP_grase_clean_VASO_V10_IR6400_T1_700
                BP_grase_clean_VASO_V10_IR6400_T1_800
                BP_grase_clean_VASO_V10_IR6400_T1_900
                BP_grase_clean_VASO_V10_IR6400_T1_1000
                BP_grase_clean_VASO_V10_IR6400_T1_1200
                BP_grase_clean_VASO_V10_IR6400_T1_1400
                BP_grase_clean_VASO_V10_IR6400_T1_1600
                BP_grase_clean_VASO_V10_IR6400_T1_1800
                BP_grase_clean_VASO_V10_IR6400_T1_2000
                BP_grase_clean_VASO_V10_IR6400_T1_2200
```