

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B15

\\USER\Wiggins\Protocols\Clinical Brain 7T\localizer

TA: 0:15 PAT: Off Voxel size: 1.1x1.0x3.0 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	Off
Load images to graphic segments	Off
Auto open inline display	Off
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	L2.4 A30.8 F40.5
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	1
Dist. factor	20 %
Position	L0.0 A32.7 F4.3
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 3	
Slices	1
Dist. factor	20 %
Position	L0.0 A32.0 F40.5
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	20.0 ms
TE	3.03 ms
Averages	1
Concatenations	3
Filter	Normalize, Elliptical filter
Coil elements	A10-24;AC1-9

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	90 %
Phase partial Fourier	Off
Interpolation	On

PAT mode	None

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	On
Intensity	Medium
Cut off	20
Width	4
Unfiltered images	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Sequential
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

VC	Off
AC1	On
AC9	On
A10	On
A11	On
A12	On
A13	On
A14	On
A15	On
A16	On
AC2	On
AC3	On
AC4	On
AC5	On
AC6	On
AC7	On
AC8	On
A17	On
A18	On
A19	On
A20	On
A21	On
A22	On
A23	On
A24	On

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
Auto Coil Select	Default

Shim mode	Tune up

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Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
Ref. amplitude 1H	200.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

1st Signal/Mode	None
Segments	1

Tagging	None
Dark blood	Off

Resp. control	Off

Inline

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

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off

MapIt	None
Contrasts	1

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	320 Hz/Px
Flow comp.	No

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B15

\\USER\Wiggins\Protocols\Clinical Brain 7T\B1 Scout

TA: 0:12 PAT: Off Voxel size: 4.7x4.7x8.0 mm Rel. SNR: 1.00 USER: dk\tfl_b1

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
AutoAlign Spine	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	L1.8 A32.5 F36.7
Orientation	S > C0.5
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	300 mm
FoV phase	100.0 %
Slice thickness	8.0 mm
TR	2000 ms
TE	1.29 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A10-24;AC1-9

Contrast

Magn. preparation	None
Flip angle	8 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	6
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Multiple series	Off

Resolution

Base resolution	64
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
Raw filter	Off
Elliptical filter	Off

Geometry

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

System

VC	Off
AC1	On
AC9	On
A10	On
A11	On
A12	On
A13	On
A14	On
A15	On
A16	On
AC2	On
AC3	On
AC4	On
AC5	On
AC6	On
AC7	On
AC8	On
A17	On
A18	On
A19	On
A20	On
A21	On
A22	On
A23	On
A24	On

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
Auto Coil Select	Default

Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
Ref. amplitude 1H	200.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm

Physio

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

Inline

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

Sequence

Introduction	Off
Dimension	2D
Asymmetric echo	Off
Bandwidth	750 Hz/Px
Flow comp.	No
Echo spacing	2.6 ms
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Saturation Option	SatPulse Off
TD	2 ms
Sel Sinc Pulse	Off
PD On	Off
FFT Scale Factor [1]	2.0
Pre Pulse	On
Flip Angle	90
Initial B1 Scale	80
B1 scale step	10
K-Trajectory Option	Centric
RF Duration	500

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\\USER\Wiggins\Protocols\Clinical Brain 7T\MPRAGE Sag

TA: 4:38 PAT: 3 Voxel size: 0.7x0.7x1.1 mm Rel. SNR: 1.00 SIEMENS: tfl

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
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Prescan Normalize	Off
Normalize	On
Intensity	Strong
Cut off	20
Width	5
Unfiltered images	On
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Single shot
Series	Ascending

Table position	H
Table position	0 mm
Inline Composing	Off

Routine

Slab group 1	
Slabs	1
Dist. factor	50 %
Position	L0.4 A39.0 F49.6
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	144
FoV read	256 mm
FoV phase	84.4 %
Slice thickness	1.10 mm
TR	2250 ms
TE	2.37 ms
Averages	1
Concatenations	1
Filter	Normalize, Elliptical filter
Coil elements	A10-24;AC1-9

System

VC	Off
AC1	On
AC9	On
A10	On
A11	On
A12	On
A13	On
A14	On
A15	On
A16	On
AC2	On
AC3	On
AC4	On
AC5	On
AC6	On
AC7	On
AC8	On
A17	On
A18	On
A19	On
A20	On
A21	On
A22	On
A23	On
A24	On

Contrast

Magn. preparation	Non-sel. IR
TI	1100 ms
Flip angle	9 deg
Fat suppr.	None
Water suppr.	None

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

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
Auto Coil Select	Default

Resolution

Base resolution	384
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	24
Accel. factor 3D	1
Reference scan mode	Integrated

Image Filter	Off
Distortion Corr.	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	R0.5 A41.2 F2.3
! Orientation	T > C-7.8 > S-1.9
! Rotation	0.32 deg
! R >> L	129 mm
! A >> P	168 mm

| ! F >> H 97 mm

Physio

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

Inline

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

Sequence

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Allowed
Bandwidth	200 Hz/Px
Flow comp.	No
Echo spacing	7.2 ms
RF pulse type	Fast
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On

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\\USER\Wiggins\Protocols\Clinical Brain 7TTSE T2

TA: 3:36 PAT: 2 Voxel size: 0.5x0.5x3.5 mm Rel. SNR: 1.00 SIEMENS: tse

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
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	40
Dist. factor	0 %
Position	L1.8 A38.7 F13.2
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	192 mm
FoV phase	87.5 %
Slice thickness	3.5 mm
TR	14300 ms
TE	73 ms
Averages	1
Concatenations	1
Filter	Normalize
Coil elements	A10-24;AC1-9

Contrast

MTC	Off
Magn. preparation	None
Flip angle	144 deg
Fat suppr.	None
Fat sat. mode	Strong
Water suppr.	None
Restore magn.	Off
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	384
Phase resolution	100 %
Phase partial Fourier	Off
Trajectory	Cartesian
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	27
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	On

Intensity	Strong
Cut off	20
Width	5
Unfiltered images	On
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

System

VC	Off
AC1	On
AC9	On
A10	On
A11	On
A12	On
A13	On
A14	On
A15	On
A16	On
AC2	On
AC3	On
AC4	On
AC5	On
AC6	On
AC7	On
AC8	On
A17	On
A18	On
A19	On
A20	On
A21	On
A22	On
A23	On
A24	On

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
Auto Coil Select	Default

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	L3.5 A40.4 F3.0
! Orientation	T > C-5.3
! Rotation	0.00 deg
! R >> L	132 mm
! A >> P	158 mm
! F >> H	99 mm

Physio

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

Inline

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

Sequence

Introduction	On
Dimension	2D
Compensate T2 decay	Off
Reduce Motion Sens.	Off
Contrasts	1
Bandwidth	260 Hz/Px
Flow comp.	No
Allowed delay	0 s
Echo spacing	10.4 ms
Define	Turbo factor
Turbo factor	13
Echo trains per slice	14
RF pulse type	Low SAR
Gradient mode	Normal

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B15

\\USER\Wiggins\Protocols\Clinical Brain 7T\SPACE FLAIR

TA: 7:22 PAT: 3 Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: tse_vfl_WIP606

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
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slab group 1	
Slabs	1
Position	L1.2 A35.4 F44.2
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	160
FoV read	256 mm
FoV phase	87.5 %
Slice thickness	1.00 mm
TR	8000 ms
TE	380 ms
Averages	1.0
Concatenations	1
Filter	Normalize
Coil elements	A10-24;AC1-9

Contrast

MTC	Off
Magn. preparation	T2 sel. IR
TI	2100 ms
Fat suppr.	None
Fat sat. mode	Strong
Water suppr.	None
Restore magn.	Off
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	256
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Allowed
Slice partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	24
Accel. factor 3D	1
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	Off

Prescan Normalize	Off
Normalize	On
Intensity	Strong
Cut off	20
Width	5
Unfiltered images	On
Raw filter	Off
Elliptical filter	Off

Geometry

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

System

VC	Off
AC1	On
AC9	On
A10	On
A11	On
A12	On
A13	On
A14	On
A15	On
A16	On
AC2	On
AC3	On
AC4	On
AC5	On
AC6	On
AC7	On
AC8	On
A17	On
A18	On
A19	On
A20	On
A21	On
A22	On
A23	On
A24	On

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
Auto Coil Select	Default

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	L1.7 A37.2 H1.6
! Orientation	S > C1.5
! Rotation	8.01 deg
! F >> H	105 mm
! A >> P	163 mm
! R >> L	130 mm

Physio

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

Inline

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

Sequence

Introduction	On
Dimension	3D
Elliptical scanning	On
Contrasts	1
Bandwidth	331 Hz/Px
Flow comp.	No
Allowed delay	30 s
Echo spacing	5.06 ms
Turbo factor	172
Echo train duration	805
RF pulse type	Normal
Gradient mode	Fast
Excitation	Non-sel.
Flip angle mode	T2 var
Reordering Mode	LINEAR
Free Discarded Echoes	Off
Simulate T1	1400
Simulate T2	60
Which Evolution Scheme	1
RF-Dur. LowSAR-Mode	800

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\\USER\Wiggins\Protocols\Clinical Brain 7T\HEMOFLASH

TA: 2:38 PAT: 3 Voxel size: 0.7x0.7x3.0 mm Rel. SNR: 1.00 USER: dk\gre_7T

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
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	45
Dist. factor	0 %
Position	L1.8 A38.7 F13.2
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	220 mm
FoV phase	87.5 %
Slice thickness	3.0 mm
TR	600 ms
TE	15.00 ms
Averages	1
Concatenations	3
Filter	Normalize
Coil elements	A10-24;AC1-9

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	25 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	320
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	24
Reference scan mode	Integrated
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	On
Intensity	Strong

Cut off	20
Width	5
Unfiltered images	On
Raw filter	Off
Elliptical filter	Off

Geometry

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

System

VC	Off
AC1	On
AC9	On
A10	On
A11	On
A12	On
A13	On
A14	On
A15	On
A16	On
AC2	On
AC3	On
AC4	On
AC5	On
AC6	On
AC7	On
AC8	On
A17	On
A18	On
A19	On
A20	On
A21	On
A22	On
A23	On
A24	On

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
Auto Coil Select	Default

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	L1.1 A39.1 F5.1
! Orientation	T > C-7.5 > S-0.2
! Rotation	89.99 deg
! A >> P	163 mm
! R >> L	136 mm
! F >> H	104 mm

Physio

1st Signal/Mode	None
Segments	1

Tagging	None
Dark blood	Off

Resp. control	Off

Inline

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

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off

MapIt	None
Contrasts	1

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	On
Asymmetric echo	Off
Bandwidth	260 Hz/Px
Flow comp.	No

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B15

\\USER\Wiggins\Protocols\Clinical Brain 7T\DIFFUSION

TA: 4:06 PAT: 3 Voxel size: 1.8x1.8x3.0 mm Rel. SNR: 1.00 USER: ep2d_diff_ivim_vb15

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
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	22
Dist. factor	66 %
Position	L1.8 A38.7 F3.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	236 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	5200 ms
TE	84 ms
Averages	2
Concatenations	1
Filter	None
Coil elements	A10-24;AC1-9

Contrast

MTC	Off
Magn. preparation	None
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	48
Reference scan mode	Separate
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

VC	Off
AC1	On
AC9	On
A10	On
A11	On
A12	On
A13	On
A14	On
A15	On
A16	On
AC2	On
AC3	On
AC4	On
AC5	On
AC6	On
AC7	On
AC8	On
A17	On
A18	On
A19	On
A20	On
A21	On
A22	On
A23	On
A24	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
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	L2.1 A38.7 F1.2
! Orientation	T > C-2.4
! Rotation	-0.01 deg
! R >> L	135 mm
! A >> P	178 mm
! F >> H	99 mm

Physio

1st Signal/Mode	None
Resp. control	Off

Diff

Diffusion mode	MDDW
Diff. weightings	2
b-value 1	0 s/mm ²
b-value 2	1000 s/mm ²
Diff. weighted images	On
Trace weighted images	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B15

Average ADC maps	On
Individual ADC maps	Off
FA maps	On
Mosaic	On
Tensor	On
Noise level	20
Diff. directions	20

Sequence

Introduction	On
Bandwidth	1698 Hz/Px
Free echo spacing	Off
Echo spacing	0.69 ms

EPI factor	128
RF pulse type	Normal
Gradient mode	Fast

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B15

\\USER\Wiggins\Protocols\Clinical Brain 7T\T2star GRE

TA: 8:20 PAT: Off Voxel size: 0.2x0.2x1.0 mm Rel. SNR: 1.00 USER: dk\gre_7T

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
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	10
Dist. factor	0 %
Position	L1.8 A38.7 F13.2
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	238 mm
FoV phase	87.5 %
Slice thickness	1.0 mm
TR	556 ms
TE	25.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A10-24;AC1-9

Contrast

MTC	Off
Magn. preparation	None
Flip angle	35 deg
Fat suppr.	None
Water suppr.	None
SWI	Off
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Each measurement

Resolution

Base resolution	1024
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off
PAT mode	None
Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
Raw filter	Off
Elliptical filter	Off

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Saturation mode	Standard
Special sat.	None

Table position	H
Table position	0 mm
Inline Composing	Off

System

VC	Off
AC1	On
AC9	On
A10	On
A11	On
A12	On
A13	On
A14	On
A15	On
A16	On
AC2	On
AC3	On
AC4	On
AC5	On
AC6	On
AC7	On
AC8	On
A17	On
A18	On
A19	On
A20	On
A21	On
A22	On
A23	On
A24	On

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
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	L1.7 A43.1 F12.6
! Orientation	T > C-2.0 > S0.1
! Rotation	89.80 deg
! A >> P	173 mm
! R >> L	138 mm
! F >> H	46 mm

Physio

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

Inline

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B15

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

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off

MapIt	None
Contrasts	1

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	On
Asymmetric echo	Off
Bandwidth	30 Hz/Px
Flow comp.	No

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

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B15

\\USER\Wiggins\Protocols\Clinical Brain 7T\DIFFUSION 30 Dir

TA: 7:49 PAT: 3 Voxel size: 2.0x2.0x3.0 mm Rel. SNR: 1.00 USER: ep2d_diff_ivim_vb15

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
AutoAlign Spine	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	20
Dist. factor	0 %
Position	L1.8 A38.7 F3.2
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	7000 ms
TE	83 ms
Averages	2
Concatenations	1
Filter	None
Coil elements	A10-24;AC1-9

Contrast

MTC	Off
Magn. preparation	None
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Delay in TR	0 ms
Multiple series	Off

Resolution

Base resolution	128
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off
PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	24
Reference scan mode	Separate
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

VC	Off
AC1	On
AC9	On
A10	On
A11	On
A12	On
A13	On
A14	On
A15	On
A16	On
AC2	On
AC3	On
AC4	On
AC5	On
AC6	On
AC7	On
AC8	On
A17	On
A18	On
A19	On
A20	On
A21	On
A22	On
A23	On
A24	On

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
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	L2.1 A38.7 F4.3
! Orientation	T > C-2.0
! Rotation	0.00 deg
! R >> L	131 mm
! A >> P	164 mm
! F >> H	61 mm

Physio

1st Signal/Mode	None
Resp. control	Off

Diff

Diffusion mode	MDDW
Diff. weightings	2
b-value 1	0 s/mm ²
b-value 2	1000 s/mm ²
Diff. weighted images	On
Trace weighted images	On

SIEMENS MAGNETOM Investigational_Device_7T syngo MR B15

Average ADC maps	On
Individual ADC maps	Off
FA maps	On
Mosaic	On
Tensor	On
Noise level	40
Diff. directions	30

Sequence

Introduction	Off
Bandwidth	1698 Hz/Px
Free echo spacing	Off
Echo spacing	0.69 ms

EPI factor	128
RF pulse type	Normal
Gradient mode	Fast