

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\Feinberglab\Suhyung\GRASE w/ CS for STG\BP\_RGRASE\_24SL\_1.0mm

TA: 6.0 s PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP\_GRASE\_SH

## 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.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	24
FoV read	102.0 mm
FoV phase	35.3 %
Slice thickness	1.00 mm
TR	3000 ms
TE	50 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

Magn. preparation	None
Flip angle	160 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	2
Pause after meas. 1	0.0 s
Multiple series	Off

## Resolution

Base resolution	102
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	6/8
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

## Geometry

Series	Interleaved
Sat. region 1	
Thickness	36 mm
Position	Isocenter

## Orientation

Special sat. Sagittal

Table position	None
Table position	H
Inline Composing	0 mm
	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	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
A >> P	102 mm
R >> L	36 mm
F >> H	24 mm

## Physio

1st Signal/Mode	None
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## Composing

## Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	1140 Hz/Px
Echo spacing	1.1 ms
Turbo factor	18
EPI factor	36
RF pulse type	Normal
Gradient mode	Fast
refocussing type	sinc 2560
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepsans	0
excite duration	2560
refoc duration	3840
excite BWTP	12.0
refoc BWTP	8.0
Variable Flip Angle 01	180
Variable Flip Angle 02	180

## SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Variable Flip Angle 03	180
Variable Flip Angle 04	180
Variable Flip Angle 05	180
Variable Flip Angle 06	180
Variable Flip Angle 07	180
Variable Flip Angle 08	180
Variable Flip Angle 09	180
Variable Flip Angle 10	180
Variable Flip Angle 11	180
Variable Flip Angle 12	180
Variable Flip Angle 13	180
Variable Flip Angle 14	180
Variable Flip Angle 15	180
Variable Flip Angle 16	180
Variable Flip Angle 17	180
Variable Flip Angle 18	180
Variable Flip Angle 19	180
Variable Flip Angle 20	180
Regular or CS	Regular
actual ETL	6
Which areas?	Visual Cortex

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\Feinberglab\Suhyung\GRASE w/ CS for STG\BP\_AccVGRASE\_CFA\_24SL\_1.0mm\_EPI20

TA: 1:30 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP\_GRASE\_SH

## 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.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	24
FoV read	102.0 mm
FoV phase	35.3 %
Slice thickness	1.00 mm
TR	1500 ms
TE	32.08 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

Magn. preparation	None
Flip angle	160 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	60
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s

Pause after meas. 20	0.0 s
Pause after meas. 21	0.0 s
Pause after meas. 22	0.0 s
Pause after meas. 23	0.0 s
Pause after meas. 24	0.0 s
Pause after meas. 25	0.0 s
Pause after meas. 26	0.0 s
Pause after meas. 27	0.0 s
Pause after meas. 28	0.0 s
Pause after meas. 29	0.0 s
Pause after meas. 30	0.0 s
Pause after meas. 31	0.0 s
Pause after meas. 32	0.0 s
Pause after meas. 33	0.0 s
Pause after meas. 34	0.0 s
Pause after meas. 35	0.0 s
Pause after meas. 36	0.0 s
Pause after meas. 37	0.0 s
Pause after meas. 38	0.0 s
Pause after meas. 39	0.0 s
Pause after meas. 40	0.0 s
Pause after meas. 41	0.0 s
Pause after meas. 42	0.0 s
Pause after meas. 43	0.0 s
Pause after meas. 44	0.0 s
Pause after meas. 45	0.0 s
Pause after meas. 46	0.0 s
Pause after meas. 47	0.0 s
Pause after meas. 48	0.0 s
Pause after meas. 49	0.0 s
Pause after meas. 50	0.0 s
Pause after meas. 51	0.0 s
Pause after meas. 52	0.0 s
Pause after meas. 53	0.0 s
Pause after meas. 54	0.0 s
Pause after meas. 55	0.0 s
Pause after meas. 56	0.0 s
Pause after meas. 57	0.0 s
Pause after meas. 58	0.0 s
Pause after meas. 59	0.0 s
Multiple series	Off

## Resolution

Base resolution	102
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

## Geometry

Series	Interleaved
Sat. region 1	
Thickness	36 mm
Position	Isocenter
Orientation	Sagittal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

System		Variable Flip Angle 12	180
T1	On	Variable Flip Angle 13	180
M2	On	Variable Flip Angle 14	180
B4	On	Variable Flip Angle 15	180
M3	On	Variable Flip Angle 16	180
V32	Off	Variable Flip Angle 17	180
		Variable Flip Angle 18	180
Positioning mode		Variable Flip Angle 19	180
MSMA	S - C - T	Variable Flip Angle 20	180
Sagittal	R >> L	Regular or CS	CS
Coronal	A >> P	actual ETL	8
Transversal	F >> H	Which areas?	Visual Cortex
Save uncombined	Off		
Coil Combine Mode	Adaptive Combine		
AutoAlign	---		
Auto Coil Select	Default		
Shim mode			
Adjust with body coil	Off		
Confirm freq. adjustment	Off		
Assume Silicone	Off		
! Ref. amplitude 1H	220.000 V		
Adjustment Tolerance	Auto		
Adjust volume			
Position	Isocenter		
Orientation	Transversal		
Rotation	90.00 deg		
A >> P	102 mm		
R >> L	36 mm		
F >> H	24 mm		
Physio			
1st Signal/Mode	None		
Composing			
Sequence			
Introduction	Off		
Dimension	3D		
Reordering	Centric		
Contrasts	1		
Bandwidth	1140 Hz/Px		
Echo spacing	1.1 ms		
Turbo factor	24		
EPI factor	20		
RF pulse type	Normal		
Gradient mode	Fast		
refocussing type	sinc 2560		
flip angle excit	90		
phase encoding	ON		
Maxwell compensation	Off		
ICE program	single		
prepscans	0		
excite duration	2560		
refoc duration	3840		
excite BWTP	12.0		
refoc BWTP	8.0		
Variable Flip Angle 01	180		
Variable Flip Angle 02	180		
Variable Flip Angle 03	180		
Variable Flip Angle 04	180		
Variable Flip Angle 05	180		
Variable Flip Angle 06	180		
Variable Flip Angle 07	180		
Variable Flip Angle 08	180		
Variable Flip Angle 09	180		
Variable Flip Angle 10	180		
Variable Flip Angle 11	180		

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\Feinberglab\Suhjung\GRASE w/ CS for STG\BP\_AccVGRASE\_CFA\_24SL\_1.0mm\_EPI16

TA: 1:30 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP\_GRASE\_SH

## 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.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	24
FoV read	102.0 mm
FoV phase	35.3 %
Slice thickness	1.00 mm
TR	1500 ms
TE	27.6 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

Magn. preparation	None
Flip angle	160 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	60
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s

Pause after meas. 20	0.0 s
Pause after meas. 21	0.0 s
Pause after meas. 22	0.0 s
Pause after meas. 23	0.0 s
Pause after meas. 24	0.0 s
Pause after meas. 25	0.0 s
Pause after meas. 26	0.0 s
Pause after meas. 27	0.0 s
Pause after meas. 28	0.0 s
Pause after meas. 29	0.0 s
Pause after meas. 30	0.0 s
Pause after meas. 31	0.0 s
Pause after meas. 32	0.0 s
Pause after meas. 33	0.0 s
Pause after meas. 34	0.0 s
Pause after meas. 35	0.0 s
Pause after meas. 36	0.0 s
Pause after meas. 37	0.0 s
Pause after meas. 38	0.0 s
Pause after meas. 39	0.0 s
Pause after meas. 40	0.0 s
Pause after meas. 41	0.0 s
Pause after meas. 42	0.0 s
Pause after meas. 43	0.0 s
Pause after meas. 44	0.0 s
Pause after meas. 45	0.0 s
Pause after meas. 46	0.0 s
Pause after meas. 47	0.0 s
Pause after meas. 48	0.0 s
Pause after meas. 49	0.0 s
Pause after meas. 50	0.0 s
Pause after meas. 51	0.0 s
Pause after meas. 52	0.0 s
Pause after meas. 53	0.0 s
Pause after meas. 54	0.0 s
Pause after meas. 55	0.0 s
Pause after meas. 56	0.0 s
Pause after meas. 57	0.0 s
Pause after meas. 58	0.0 s
Pause after meas. 59	0.0 s
Multiple series	Off

## Resolution

Base resolution	102
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

## Geometry

Series	Interleaved
Sat. region 1	
Thickness	36 mm
Position	Isocenter
Orientation	Sagittal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

System		Variable Flip Angle 12	180
		Variable Flip Angle 13	180
		Variable Flip Angle 14	180
		Variable Flip Angle 15	180
		Variable Flip Angle 16	180
		Variable Flip Angle 17	180
		Variable Flip Angle 18	180
		Variable Flip Angle 19	180
		Variable Flip Angle 20	180
		Regular or CS	CS
		actual ETL	10
		Which areas?	Visual Cortex
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	220.000 V		
Adjustment Tolerance	Auto		
Adjust volume			
Position	Isocenter		
Orientation	Transversal		
Rotation	90.00 deg		
A >> P	102 mm		
R >> L	36 mm		
F >> H	24 mm		
Physio			
1st Signal/Mode	None		
Composing			
Sequence			
Introduction	Off		
Dimension	3D		
Reordering	Centric		
Contrasts	1		
Bandwidth	1140 Hz/Px		
Echo spacing	1.1 ms		
Turbo factor	24		
EPI factor	16		
RF pulse type	Normal		
Gradient mode	Fast		
refocussing type	sinc 2560		
flip angle excit	90		
phase encoding	ON		
Maxwell compensation	Off		
ICE program	single		
prepscans	0		
excite duration	2560		
refoc duration	3840		
excite BWTP	12.0		
refoc BWTP	8.0		
Variable Flip Angle 01	180		
Variable Flip Angle 02	180		
Variable Flip Angle 03	180		
Variable Flip Angle 04	180		
Variable Flip Angle 05	180		
Variable Flip Angle 06	180		
Variable Flip Angle 07	180		
Variable Flip Angle 08	180		
Variable Flip Angle 09	180		
Variable Flip Angle 10	180		
Variable Flip Angle 11	180		

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\Feinberglab\Suhyung\GRASE w/ CS for STG\BP\_AccVGRASE\_24SL\_1.0mm\_EPI20

TA: 1:30 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP\_GRASE\_SH

## 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.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	24
FoV read	102.0 mm
FoV phase	35.3 %
Slice thickness	1.00 mm
TR	1500 ms
TE	32.08 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

Magn. preparation	None
Flip angle	160 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	60
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s

Pause after meas. 20	0.0 s
Pause after meas. 21	0.0 s
Pause after meas. 22	0.0 s
Pause after meas. 23	0.0 s
Pause after meas. 24	0.0 s
Pause after meas. 25	0.0 s
Pause after meas. 26	0.0 s
Pause after meas. 27	0.0 s
Pause after meas. 28	0.0 s
Pause after meas. 29	0.0 s
Pause after meas. 30	0.0 s
Pause after meas. 31	0.0 s
Pause after meas. 32	0.0 s
Pause after meas. 33	0.0 s
Pause after meas. 34	0.0 s
Pause after meas. 35	0.0 s
Pause after meas. 36	0.0 s
Pause after meas. 37	0.0 s
Pause after meas. 38	0.0 s
Pause after meas. 39	0.0 s
Pause after meas. 40	0.0 s
Pause after meas. 41	0.0 s
Pause after meas. 42	0.0 s
Pause after meas. 43	0.0 s
Pause after meas. 44	0.0 s
Pause after meas. 45	0.0 s
Pause after meas. 46	0.0 s
Pause after meas. 47	0.0 s
Pause after meas. 48	0.0 s
Pause after meas. 49	0.0 s
Pause after meas. 50	0.0 s
Pause after meas. 51	0.0 s
Pause after meas. 52	0.0 s
Pause after meas. 53	0.0 s
Pause after meas. 54	0.0 s
Pause after meas. 55	0.0 s
Pause after meas. 56	0.0 s
Pause after meas. 57	0.0 s
Pause after meas. 58	0.0 s
Pause after meas. 59	0.0 s
Multiple series	Off

## Resolution

Base resolution	102
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

## Geometry

Series	Interleaved
Sat. region 1	
Thickness	36 mm
Position	Isocenter
Orientation	Sagittal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

System		Variable Flip Angle 12	180
		Variable Flip Angle 13	180
		Variable Flip Angle 14	180
		Variable Flip Angle 15	180
		Variable Flip Angle 16	180
		Variable Flip Angle 17	180
		Variable Flip Angle 18	180
		Variable Flip Angle 19	180
		Variable Flip Angle 20	180
		Regular or CS	CS
		actual ETL	10
		Which areas?	Motor Cortex
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	220.000 V		
Adjustment Tolerance	Auto		
Adjust volume			
Position	Isocenter		
Orientation	Transversal		
Rotation	90.00 deg		
A >> P	102 mm		
R >> L	36 mm		
F >> H	24 mm		
Physio			
1st Signal/Mode	None		
Composing			
Sequence			
Introduction	Off		
Dimension	3D		
Reordering	Centric		
Contrasts	1		
Bandwidth	1140 Hz/Px		
Echo spacing	1.1 ms		
Turbo factor		24	
EPI factor		20	
RF pulse type		Normal	
Gradient mode		Fast	
refocussing type		variable sinc	
flip angle excit		90	
phase encoding		ON	
Maxwell compensation		Off	
ICE program		single	
prepscans		0	
excite duration		2560	
refoc duration		3840	
excite BWTP		12.0	
refoc BWTP		8.0	
Variable Flip Angle 01		180	
Variable Flip Angle 02		180	
Variable Flip Angle 03		180	
Variable Flip Angle 04		180	
Variable Flip Angle 05		180	
Variable Flip Angle 06		180	
Variable Flip Angle 07		180	
Variable Flip Angle 08		180	
Variable Flip Angle 09		180	
Variable Flip Angle 10		180	
Variable Flip Angle 11		180	



\\USER\Feinberglab\Suhying\GRASE w/ CS for STG\BP\_AccVGRASE\_24SL\_1.0mm\_EPI16

TA: 1:30 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP\_GRASE\_SH

## 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.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	24
FoV read	102.0 mm
FoV phase	35.3 %
Slice thickness	1.00 mm
TR	1500 ms
TE	27.6 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

Magn. preparation	None
Flip angle	160 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	60
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s

Pause after meas. 20	0.0 s
Pause after meas. 21	0.0 s
Pause after meas. 22	0.0 s
Pause after meas. 23	0.0 s
Pause after meas. 24	0.0 s
Pause after meas. 25	0.0 s
Pause after meas. 26	0.0 s
Pause after meas. 27	0.0 s
Pause after meas. 28	0.0 s
Pause after meas. 29	0.0 s
Pause after meas. 30	0.0 s
Pause after meas. 31	0.0 s
Pause after meas. 32	0.0 s
Pause after meas. 33	0.0 s
Pause after meas. 34	0.0 s
Pause after meas. 35	0.0 s
Pause after meas. 36	0.0 s
Pause after meas. 37	0.0 s
Pause after meas. 38	0.0 s
Pause after meas. 39	0.0 s
Pause after meas. 40	0.0 s
Pause after meas. 41	0.0 s
Pause after meas. 42	0.0 s
Pause after meas. 43	0.0 s
Pause after meas. 44	0.0 s
Pause after meas. 45	0.0 s
Pause after meas. 46	0.0 s
Pause after meas. 47	0.0 s
Pause after meas. 48	0.0 s
Pause after meas. 49	0.0 s
Pause after meas. 50	0.0 s
Pause after meas. 51	0.0 s
Pause after meas. 52	0.0 s
Pause after meas. 53	0.0 s
Pause after meas. 54	0.0 s
Pause after meas. 55	0.0 s
Pause after meas. 56	0.0 s
Pause after meas. 57	0.0 s
Pause after meas. 58	0.0 s
Pause after meas. 59	0.0 s
Multiple series	Off

## Resolution

Base resolution	102
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

## Geometry

Series	Interleaved
Sat. region 1	
Thickness	36 mm
Position	Isocenter
Orientation	Sagittal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

System		Variable Flip Angle 12	180
		Variable Flip Angle 13	180
		Variable Flip Angle 14	180
		Variable Flip Angle 15	180
		Variable Flip Angle 16	180
		Variable Flip Angle 17	180
		Variable Flip Angle 18	180
		Variable Flip Angle 19	180
		Variable Flip Angle 20	180
		Regular or CS	CS
		actual ETL	10
		Which areas?	Motor Cortex
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	220.000 V		
Adjustment Tolerance	Auto		
Adjust volume			
Position	Isocenter		
Orientation	Transversal		
Rotation	90.00 deg		
A >> P	102 mm		
R >> L	36 mm		
F >> H	24 mm		
Physio			
1st Signal/Mode	None		
Composing			
Sequence			
Introduction	Off		
Dimension	3D		
Reordering	Centric		
Contrasts	1		
Bandwidth	1140 Hz/Px		
Echo spacing	1.1 ms		
Turbo factor		24	
EPI factor		16	
RF pulse type		Normal	
Gradient mode		Fast	
refocussing type	variable sinc		
flip angle excit	90		
phase encoding	ON		
Maxwell compensation	Off		
ICE program	single		
prepscans	0		
excite duration	2560		
refoc duration	3840		
excite BWTP	12.0		
refoc BWTP	8.0		
Variable Flip Angle 01	180		
Variable Flip Angle 02	180		
Variable Flip Angle 03	180		
Variable Flip Angle 04	180		
Variable Flip Angle 05	180		
Variable Flip Angle 06	180		
Variable Flip Angle 07	180		
Variable Flip Angle 08	180		
Variable Flip Angle 09	180		
Variable Flip Angle 10	180		
Variable Flip Angle 11	180		

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

TA: 1:30 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP\_GRASE\_SH

## 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.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	24
FoV read	102.0 mm
FoV phase	35.3 %
Slice thickness	1.00 mm
TR	1500 ms
TE	30.8 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

Magn. preparation	None
Flip angle	160 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	60
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s

Pause after meas. 20	0.0 s
Pause after meas. 21	0.0 s
Pause after meas. 22	0.0 s
Pause after meas. 23	0.0 s
Pause after meas. 24	0.0 s
Pause after meas. 25	0.0 s
Pause after meas. 26	0.0 s
Pause after meas. 27	0.0 s
Pause after meas. 28	0.0 s
Pause after meas. 29	0.0 s
Pause after meas. 30	0.0 s
Pause after meas. 31	0.0 s
Pause after meas. 32	0.0 s
Pause after meas. 33	0.0 s
Pause after meas. 34	0.0 s
Pause after meas. 35	0.0 s
Pause after meas. 36	0.0 s
Pause after meas. 37	0.0 s
Pause after meas. 38	0.0 s
Pause after meas. 39	0.0 s
Pause after meas. 40	0.0 s
Pause after meas. 41	0.0 s
Pause after meas. 42	0.0 s
Pause after meas. 43	0.0 s
Pause after meas. 44	0.0 s
Pause after meas. 45	0.0 s
Pause after meas. 46	0.0 s
Pause after meas. 47	0.0 s
Pause after meas. 48	0.0 s
Pause after meas. 49	0.0 s
Pause after meas. 50	0.0 s
Pause after meas. 51	0.0 s
Pause after meas. 52	0.0 s
Pause after meas. 53	0.0 s
Pause after meas. 54	0.0 s
Pause after meas. 55	0.0 s
Pause after meas. 56	0.0 s
Pause after meas. 57	0.0 s
Pause after meas. 58	0.0 s
Pause after meas. 59	0.0 s
Multiple series	Off

## Resolution

Base resolution	102
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

## Geometry

Series	Interleaved
Sat. region 1	
Thickness	36 mm
Position	Isocenter
Orientation	Sagittal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

System		Variable Flip Angle 12	180
T1		Variable Flip Angle 13	180
M2		Variable Flip Angle 14	180
B4		Variable Flip Angle 15	180
M3		Variable Flip Angle 16	180
V32		Variable Flip Angle 17	180
		Variable Flip Angle 18	180
		Variable Flip Angle 19	180
		Variable Flip Angle 20	180
Positioning mode		Regular or CS	CS
MSMA		actual ETL	10
Sagittal		Which areas?	Motor Cortex
Coronal			
Transversal			
Save uncombined			
Coil Combine Mode			
AutoAlign			
Auto Coil Select			
Shim mode			
Adjust with body coil			
Confirm freq. adjustment			
Assume Silicone			
! Ref. amplitude 1H			
Adjustment Tolerance			
Adjust volume			
Position			
Orientation			
Rotation			
A >> P			
R >> L			
F >> H			
Physio			
1st Signal/Mode			
Composing			
Sequence			
Introduction			
Dimension			
Reordering			
Contrasts			
Bandwidth			
Echo spacing			
Turbo factor			
EPI factor			
RF pulse type			
Gradient mode			
refocussing type			
flip angle excit			
phase encoding			
Maxwell compensation			
ICE program			
prepscans			
excite duration			
refoc duration			
excite BWTP			
refoc BWTP			
Variable Flip Angle 01			
Variable Flip Angle 02			
Variable Flip Angle 03			
Variable Flip Angle 04			
Variable Flip Angle 05			
Variable Flip Angle 06			
Variable Flip Angle 07			
Variable Flip Angle 08			
Variable Flip Angle 09			
Variable Flip Angle 10			
Variable Flip Angle 11			

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\Feinberglab\Suhying\GRASE w/ CS for STG\BP\_AccVGRASE\_36SL\_1.0mm\_EPI20

TA: 1:30 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP\_GRASE\_SH

## 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.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	36
FoV read	102.0 mm
FoV phase	35.3 %
Slice thickness	1.00 mm
TR	1500 ms
TE	32.08 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

Magn. preparation	None
Flip angle	160 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	60
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s

Pause after meas. 20	0.0 s
Pause after meas. 21	0.0 s
Pause after meas. 22	0.0 s
Pause after meas. 23	0.0 s
Pause after meas. 24	0.0 s
Pause after meas. 25	0.0 s
Pause after meas. 26	0.0 s
Pause after meas. 27	0.0 s
Pause after meas. 28	0.0 s
Pause after meas. 29	0.0 s
Pause after meas. 30	0.0 s
Pause after meas. 31	0.0 s
Pause after meas. 32	0.0 s
Pause after meas. 33	0.0 s
Pause after meas. 34	0.0 s
Pause after meas. 35	0.0 s
Pause after meas. 36	0.0 s
Pause after meas. 37	0.0 s
Pause after meas. 38	0.0 s
Pause after meas. 39	0.0 s
Pause after meas. 40	0.0 s
Pause after meas. 41	0.0 s
Pause after meas. 42	0.0 s
Pause after meas. 43	0.0 s
Pause after meas. 44	0.0 s
Pause after meas. 45	0.0 s
Pause after meas. 46	0.0 s
Pause after meas. 47	0.0 s
Pause after meas. 48	0.0 s
Pause after meas. 49	0.0 s
Pause after meas. 50	0.0 s
Pause after meas. 51	0.0 s
Pause after meas. 52	0.0 s
Pause after meas. 53	0.0 s
Pause after meas. 54	0.0 s
Pause after meas. 55	0.0 s
Pause after meas. 56	0.0 s
Pause after meas. 57	0.0 s
Pause after meas. 58	0.0 s
Pause after meas. 59	0.0 s
Multiple series	Off

## Resolution

Base resolution	102
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

## Geometry

Series	Interleaved
Sat. region 1	
Thickness	36 mm
Position	Isocenter
Orientation	Sagittal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

System		Variable Flip Angle 12	180
		Variable Flip Angle 13	180
		Variable Flip Angle 14	180
		Variable Flip Angle 15	180
		Variable Flip Angle 16	180
		Variable Flip Angle 17	180
		Variable Flip Angle 18	180
		Variable Flip Angle 19	180
		Variable Flip Angle 20	180
		Regular or CS	CS
		actual ETL	14
		Which areas?	Motor Cortex
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	220.000 V		
Adjustment Tolerance	Auto		
Adjust volume			
Position	Isocenter		
Orientation	Transversal		
Rotation	90.00 deg		
A >> P	102 mm		
R >> L	36 mm		
F >> H	36 mm		
Physio			
1st Signal/Mode	None		
Composing			
Sequence			
Introduction	Off		
Dimension	3D		
Reordering	Centric		
Contrasts	1		
Bandwidth	1140 Hz/Px		
Echo spacing	1.1 ms		
Turbo factor	36		
EPI factor	20		
RF pulse type	Normal		
Gradient mode	Fast		
refocussing type	variable sinc		
flip angle excit	90		
phase encoding	ON		
Maxwell compensation	Off		
ICE program	single		
prepscans	0		
excite duration	2560		
refoc duration	3840		
excite BWTP	12.0		
refoc BWTP	8.0		
Variable Flip Angle 01	180		
Variable Flip Angle 02	180		
Variable Flip Angle 03	180		
Variable Flip Angle 04	180		
Variable Flip Angle 05	180		
Variable Flip Angle 06	180		
Variable Flip Angle 07	180		
Variable Flip Angle 08	180		
Variable Flip Angle 09	180		
Variable Flip Angle 10	180		
Variable Flip Angle 11	180		

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\Feinberglab\Suhyung\GRASE w/ CS for STG\BP\_AccVGRASE\_36SL\_0.8mm

TA: 1:30 PAT: Off Voxel size: 0.8x0.8x0.8 mm Rel. SNR: 1.00 USER: BP\_GRASE\_SH

## 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.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	36
FoV read	89.6 mm
FoV phase	25.0 %
Slice thickness	0.80 mm
TR	1500 ms
TE	22.82 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

Magn. preparation	None
Flip angle	180 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	60
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s

Pause after meas. 20	0.0 s
Pause after meas. 21	0.0 s
Pause after meas. 22	0.0 s
Pause after meas. 23	0.0 s
Pause after meas. 24	0.0 s
Pause after meas. 25	0.0 s
Pause after meas. 26	0.0 s
Pause after meas. 27	0.0 s
Pause after meas. 28	0.0 s
Pause after meas. 29	0.0 s
Pause after meas. 30	0.0 s
Pause after meas. 31	0.0 s
Pause after meas. 32	0.0 s
Pause after meas. 33	0.0 s
Pause after meas. 34	0.0 s
Pause after meas. 35	0.0 s
Pause after meas. 36	0.0 s
Pause after meas. 37	0.0 s
Pause after meas. 38	0.0 s
Pause after meas. 39	0.0 s
Pause after meas. 40	0.0 s
Pause after meas. 41	0.0 s
Pause after meas. 42	0.0 s
Pause after meas. 43	0.0 s
Pause after meas. 44	0.0 s
Pause after meas. 45	0.0 s
Pause after meas. 46	0.0 s
Pause after meas. 47	0.0 s
Pause after meas. 48	0.0 s
Pause after meas. 49	0.0 s
Pause after meas. 50	0.0 s
Pause after meas. 51	0.0 s
Pause after meas. 52	0.0 s
Pause after meas. 53	0.0 s
Pause after meas. 54	0.0 s
Pause after meas. 55	0.0 s
Pause after meas. 56	0.0 s
Pause after meas. 57	0.0 s
Pause after meas. 58	0.0 s
Pause after meas. 59	0.0 s
Multiple series	Off

## Resolution

Base resolution	112
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

## Geometry

Series	Interleaved
Sat. region 1	
Thickness	22 mm
Position	Isocenter
Orientation	Sagittal
Special sat.	None
Table position	H
Table position	0 mm
Inline Composing	Off

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

System		Variable Flip Angle 12	74
T1		Variable Flip Angle 13	89
M2		Variable Flip Angle 14	135
B4		Variable Flip Angle 15	180
M3		Variable Flip Angle 16	180
V32		Variable Flip Angle 17	180
		Variable Flip Angle 18	180
		Variable Flip Angle 19	180
		Variable Flip Angle 20	180
Positioning mode		Regular or CS	CS
MSMA		actual ETL	14
Sagittal		Which areas?	Motor Cortex
Coronal			
Transversal			
Save uncombined			
Coil Combine Mode			
AutoAlign			
Auto Coil Select			
Shim mode			
Adjust with body coil			
Confirm freq. adjustment			
Assume Silicone			
! Ref. amplitude 1H			
Adjustment Tolerance			
Adjust volume			
Position			
Orientation			
Rotation			
A >> P			
R >> L			
F >> H			
Physio			
1st Signal/Mode			
Composing			
Sequence			
Introduction			
Dimension			
Reordering			
Contrasts			
Bandwidth			
Echo spacing			
Turbo factor			
EPI factor			
RF pulse type			
Gradient mode			
refocussing type			
flip angle excit			
phase encoding			
Maxwell compensation			
ICE program			
prepscans			
excite duration			
refoc duration			
excite BWTP			
refoc BWTP			
Variable Flip Angle 01			
Variable Flip Angle 02			
Variable Flip Angle 03			
Variable Flip Angle 04			
Variable Flip Angle 05			
Variable Flip Angle 06			
Variable Flip Angle 07			
Variable Flip Angle 08			
Variable Flip Angle 09			
Variable Flip Angle 10			
Variable Flip Angle 11			



# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\Feinberglab\Suhjung\GRASE w/ CS for STG\BP\_AccCGRASE\_24SL\_1.0mm\_TE23ms

TA: 9:54 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP\_GRASE\_SH

## 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.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	24
FoV read	102.0 mm
FoV phase	35.3 %
Slice thickness	1.00 mm
TR	1500 ms
TE	23.12 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

Magn. preparation	None
Flip angle	160 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	396
Pause after meas.	0.0 s
Multiple series	Off

## Resolution

Base resolution	102
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

## Geometry

Series	Interleaved
Sat. region 1	
Thickness	36 mm
Position	Isocenter

## Orientation

Special sat. Sagittal

Table position	None
Table position	H
Inline Composing	0 mm
	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	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
A >> P	102 mm
R >> L	36 mm
F >> H	24 mm

## Physio

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

## Composing

## Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	1140 Hz/Px
Echo spacing	1.1 ms
Turbo factor	24
EPI factor	12
RF pulse type	Normal
Gradient mode	Fast
refocussing type	sinc 2560
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepsans	0
excite duration	2560
refoc duration	3840
excite BWTP	12.0
refoc BWTP	8.0
Variable Flip Angle 01	180
Variable Flip Angle 02	180

Variable Flip Angle 03	180
Variable Flip Angle 04	180
Variable Flip Angle 05	180
Variable Flip Angle 06	180
Variable Flip Angle 07	180
Variable Flip Angle 08	180
Variable Flip Angle 09	180
Variable Flip Angle 10	180
Variable Flip Angle 11	180
Variable Flip Angle 12	180
Variable Flip Angle 13	180
Variable Flip Angle 14	180
Variable Flip Angle 15	180
Variable Flip Angle 16	180
Variable Flip Angle 17	180
Variable Flip Angle 18	180
Variable Flip Angle 19	180
Variable Flip Angle 20	180
Regular or CS	CS
actual ETL	10
Which areas?	STG

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\Feinberglab\Suhyung\GRASE w/ CS for STG\BP\_AccVGRASE\_24SL\_1.0mm\_TE23ms

TA: 9:54 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP\_GRASE\_SH

## 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.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	24
FoV read	102.0 mm
FoV phase	35.3 %
Slice thickness	1.00 mm
TR	1500 ms
TE	23.12 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

Magn. preparation	None
Flip angle	160 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	396
Pause after meas.	0.0 s
Multiple series	Off

## Resolution

Base resolution	102
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

## Geometry

Series	Interleaved
Sat. region 1	
Thickness	36 mm
Position	Isocenter

## Orientation

Special sat. Sagittal

Table position	None
Table position	H
Inline Composing	0 mm
	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	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
A >> P	102 mm
R >> L	36 mm
F >> H	24 mm

## Physio

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

## Composing

## Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	1140 Hz/Px
Echo spacing	1.1 ms
Turbo factor	24
EPI factor	12
RF pulse type	Normal
Gradient mode	Fast
refocussing type	variable sinc
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0
excite duration	2560
refoc duration	3840
excite BWTP	12.0
refoc BWTP	8.0
Variable Flip Angle 01	180
Variable Flip Angle 02	180

## SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Variable Flip Angle 03	180
Variable Flip Angle 04	180
Variable Flip Angle 05	180
Variable Flip Angle 06	180
Variable Flip Angle 07	180
Variable Flip Angle 08	180
Variable Flip Angle 09	180
Variable Flip Angle 10	180
Variable Flip Angle 11	180
Variable Flip Angle 12	180
Variable Flip Angle 13	180
Variable Flip Angle 14	180
Variable Flip Angle 15	180
Variable Flip Angle 16	180
Variable Flip Angle 17	180
Variable Flip Angle 18	180
Variable Flip Angle 19	180
Variable Flip Angle 20	180
Regular or CS	CS
actual ETL	10
Which areas?	STG

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\Feinberglab\Suhyung\GRASE w/ CS for STG\BP\_AccVGRASE\_24SL\_1.0mm\_TE21ms

TA: 9:54 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP\_GRASE\_SH

## 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.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	24
FoV read	102.0 mm
FoV phase	35.3 %
Slice thickness	1.00 mm
TR	1500 ms
TE	21.84 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

Magn. preparation	None
Flip angle	160 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	396
Pause after meas.	0.0 s
Multiple series	Off

## Resolution

Base resolution	102
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

## Geometry

Series	Interleaved
Sat. region 1	
Thickness	36 mm
Position	Isocenter

## Orientation

Special sat. Sagittal

Table position	None
Table position	H
Inline Composing	0 mm
	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	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
A >> P	102 mm
R >> L	36 mm
F >> H	24 mm

## Physio

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

## Composing

## Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	1140 Hz/Px
Echo spacing	1.1 ms
Turbo factor	24
EPI factor	12
RF pulse type	Normal
Gradient mode	Fast
refocussing type	variable sinc
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepsans	0
excite duration	2560
refoc duration	2560
excite BWTP	12.0
refoc BWTP	8.0
Variable Flip Angle 01	180
Variable Flip Angle 02	180

## SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Variable Flip Angle 03	180
Variable Flip Angle 04	180
Variable Flip Angle 05	180
Variable Flip Angle 06	180
Variable Flip Angle 07	180
Variable Flip Angle 08	180
Variable Flip Angle 09	180
Variable Flip Angle 10	180
Variable Flip Angle 11	180
Variable Flip Angle 12	180
Variable Flip Angle 13	180
Variable Flip Angle 14	180
Variable Flip Angle 15	180
Variable Flip Angle 16	180
Variable Flip Angle 17	180
Variable Flip Angle 18	180
Variable Flip Angle 19	180
Variable Flip Angle 20	180
Regular or CS	CS
actual ETL	10
Which areas?	STG

## SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\Feinberglab\Suhyung\GRASE w/ CS for STG\BP\_AccVGRASE\_36SL\_1.0mm\_TE23ms

TA: 9:54 PAT: Off Voxel size: 1.0x1.0x1.0 mm Rel. SNR: 1.00 USER: BP\_GRASE\_SH

## 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.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	36
FoV read	102.0 mm
FoV phase	35.3 %
Slice thickness	1.00 mm
TR	1500 ms
TE	23.12 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

Magn. preparation	None
Flip angle	160 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	396
Pause after meas.	0.0 s
Multiple series	Off

## Resolution

Base resolution	102
Phase resolution	100 %
Slice resolution	100 %
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Prescan Normalize	Off
Raw filter	Off

## Geometry

Series	Interleaved
Sat. region 1	
Thickness	36 mm
Position	Isocenter

## Orientation

Special sat. Sagittal

Table position	None
Table position	H
Inline Composing	0 mm
	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	220.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
A >> P	102 mm
R >> L	36 mm
F >> H	36 mm

## Physio

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

## Composing

## Sequence

Introduction	Off
Dimension	3D
Reordering	Centric
Contrasts	1
Bandwidth	1140 Hz/Px
Echo spacing	1.1 ms

Turbo factor	36
EPI factor	12
RF pulse type	Normal
Gradient mode	Fast

refocussing type	variable sinc
flip angle excit	90
phase encoding	ON
Maxwell compensation	Off
ICE program	single
prepscans	0
excite duration	2560
refoc duration	3840
excite BWTP	12.0
refoc BWTP	8.0
Variable Flip Angle 01	180
Variable Flip Angle 02	180

## SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Variable Flip Angle 03	180
Variable Flip Angle 04	180
Variable Flip Angle 05	180
Variable Flip Angle 06	180
Variable Flip Angle 07	180
Variable Flip Angle 08	180
Variable Flip Angle 09	180
Variable Flip Angle 10	180
Variable Flip Angle 11	180
Variable Flip Angle 12	180
Variable Flip Angle 13	180
Variable Flip Angle 14	180
Variable Flip Angle 15	180
Variable Flip Angle 16	180
Variable Flip Angle 17	180
Variable Flip Angle 18	180
Variable Flip Angle 19	180
Variable Flip Angle 20	180
Regular or CS	CS
actual ETL	14
Which areas?	STG



# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\Feinberglab\Suhyung\GRASE w/ CS for STG\ep2d\_M1P2f1\_iso150

TA: 9:16 PAT: 3 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: ep2d\_bold\_OVS\_flash

## 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	12
Dist. factor	0 %
Position	L1.2 P36.6 H20.5
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	80.6 %
Slice thickness	1.50 mm
TR	1100 ms
TE	18 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

MTC	Off
Flip angle	70 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	500
Delay in TR	0 ms
Multiple series	Off

## Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
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	Ascending

## Sat. region 1

Thickness	110 mm
Position	L0.0 A50.7 H0.0
Orientation	Coronal

## Sat. region 2

Thickness	110 mm
Position	L0.0 P136.2 F35.7
Orientation	C > T14.7
Special sat.	None

## Table position

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	Off
Assume Silicone	Off
! Ref. amplitude 1H	200.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L1.2 P36.6 H20.5
Orientation	Transversal
Rotation	0.00 deg
R >> L	216 mm
A >> P	174 mm
F >> H	18 mm

## Physio

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

## 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

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

## Sequence

Introduction	Off
Asymmetric echo	Off
Bandwidth	1828 Hz/Px
Free echo spacing	Off
Echo spacing	0.65 ms
<hr/>	
EPI factor	116
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
<hr/>	
RF90 duration	5120
MB Number	1
DummyScan Number	1
FOV Shift Number	1
SkewType(1ff)	0
OVS flash(1on)	1
SER Number	1
Spoil factor	1
Skew Direction	1
Sat RF90 duration	5120
Dual On(1)	3
Echo Distance	1.00
MB Measurements	4
Ramp On	On

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\Feinberglab\Suhyung\GRASE w/ CS for STG\ep2d\_venc\_ms\_sbmb\_SAT\_flashref

TA: 0:40 PAT: 3 Voxel size: 1.5x1.5x1.5 mm Rel. SNR: 1.00 USER: ep2d\_venc\_ms\_sbmb\_SAT\_flashref

## 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	12
Dist. factor	0 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	216 mm
FoV phase	80.6 %
Slice thickness	1.5 mm
TR	1100 ms
TE	18.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	B4;M2,3;T1

## Contrast

MTC	Off
Flip angle	50 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	500
Delay in TR	0 ms
Multiple series	Off

## Resolution

Base resolution	144
Phase resolution	100 %
Phase partial Fourier	7/8
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	Off
Elliptical filter	Off
Hamming	Off

## Geometry

Multi-slice mode	Interleaved
Series	Ascending

## Sat. region 1

Thickness	110 mm
Position	Isocenter
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
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	200.000 V
Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	216 mm
A >> P	174 mm
F >> H	18 mm

## Physio

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

## Angio

Flow mode	Free
Encodings	1
Velocity enc.	40 cm/s
Direction	Through plane
Magnitude sum	Off

## Sequence

Introduction	Off
Bandwidth	1828 Hz/Px
Free echo spacing	Off
Echo spacing	0.88 ms
EPI factor	116
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
RF90 duration	5120
MB Number	1
DummyScan Number	1
FOV Shift Number	1
Shift K0 Center	1
Every Other Slice	1
SER Number	1

## SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Venc Repetition	1
Spoil factor	1
Skew Direction	0
Dual On(1)	1
Venc Type(0off,1+-,20+,3on)	50

# SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\Feinberglab\Suhyung\GRASE w/ CS for STG\ep2d\_venc\_ms\_sbmb\_SAT\_flashref\_SH

TA: 0.2 s PAT: Off Voxel size: 7.8x3.9x5.0 mm Rel. SNR: 1.00 USER: ep2d\_venc\_ms\_sbmb\_SAT\_flashref\_!

## 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	200 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
FoV read	500 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	59 ms
TE	1.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	T1

## Contrast

MTC	Off
Flip angle	90 deg
Fat suppr.	Fat sat.
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Delay in TR	0 ms
Multiple series	Off

## Resolution

Base resolution	128
Phase resolution	50 %
Phase partial Fourier	5/8
Interpolation	Off
PAT mode	None
Distortion Corr.	Off
Prescan Normalize	Off
Raw filter	Off
Elliptical filter	Off
Hamming	Off

## Geometry

Multi-slice mode	Interleaved
Series	Ascending
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
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	0.00 deg
R >> L	500 mm
A >> P	500 mm
F >> H	5 mm

## Physio

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

## Angio

Flow mode	Single dir.
Encodings	1
Velocity enc.	90 cm/s
Direction	Through plane
Magnitude sum	Off

## Sequence

Introduction	Off
Bandwidth	752 Hz/Px
Free echo spacing	Off
Echo spacing	1.4 ms
EPI factor	64
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
RF90 duration	5120
MB Number	1
DummyScan Number	1
FOV Shift Number	1
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	1
Spoil factor	5
Skew Direction	0
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+,-,20+,3on)	0

## Table of contents

\\USER

Feinberglab

Suhung

GRASE w/ CS for STG

BP\_RGRASE\_24SL\_1.0mm  
 BP\_AccVGRASE\_CFA\_24SL\_1.0mm\_EPI20  
 BP\_AccVGRASE\_CFA\_24SL\_1.0mm\_EPI16  
 BP\_AccVGRASE\_24SL\_1.0mm\_EPI20  
 BP\_AccVGRASE\_24SL\_1.0mm\_EPI16  
 BP\_AccVGRASE\_24SL\_1.0mm\_EPI20\_RefDuration2560  
 BP\_AccVGRASE\_36SL\_1.0mm\_EPI20  
 BP\_AccVGRASE\_36SL\_0.8mm  
 Functional Acquisitions  
 BP\_AccCGRASE\_24SL\_1.0mm\_TE23ms  
 BP\_AccVGRASE\_24SL\_1.0mm\_TE23ms  
 BP\_AccVGRASE\_24SL\_1.0mm\_TE21ms  
 BP\_AccVGRASE\_36SL\_1.0mm\_TE23ms  
 Outer VolumeSuppressions  
 ep2d\_M1P2f1\_iso150  
 ep2d\_venc\_ms\_sbmb\_SAT\_flashref  
 ep2d\_venc\_ms\_sbmb\_SAT\_flashref\_SH