

# SIEMENS MAGNETOM Avanto syngo MR 2004V

\USER\ADNI\MAIN\_PHASE\Human Protocol\localizer  
 + TA: 0:10 PAT: Off Voxel size: 1.9x1.5x8.0 [mm] Rel. SNR: 1.00 SIEMENS: gre

Routine		Multi-slice mode	Sequential
Slice group 1		Series	Ascending
Slices	1	Saturation mode	Standard
Dist. factor	20 [%]	Special sat.	None
Position	Isocenter	System	
Orientation	Sagittal	Body	Off
Phase enc. dir.	A >> P	HE1	On
Rotation	0 [deg]	HE3	On
Slice group 2		HE2	On
Slices	1	HE4	On
Dist. factor	20 [%]	Save uncombined	Off
Position	Isocenter	Scan at current TP	On
Orientation	Coronal	MSMA	S - C - T
Phase enc. dir.	R >> L	Sagittal	R >> L
Rotation	0 [deg]	Coronal	A >> P
Slice group 3		Transversal	F >> H
Slices	1	Shim mode	Tune up
Dist. factor	20 [%]	Adjust with body coil	Off
Position	Isocenter	Confirm freq. adjustment	Off
Orientation	Transversal	Assume Silicone	Off
Phase enc. dir.	R >> L	Ref. amplitude [1H]	Use Default Value [V]
Rotation	90 [deg]	Adjust volume	
Phase oversampling	0 [%]	Position	Isocenter
FoV read	280 [mm]	Orientation	Transversal
FoV phase	100.0 [%]	Rotation	0 [deg]
Slice thickness	8 [mm]	R >> L	350 [mm]
TR	20 [ms]	A >> P	263 [mm]
TE	5 [ms]	F >> H	350 [mm]
Averages	1	Physio	
Concatenations	3	1st Signal/Mode	None
Filter	Raw filter, Normalize	Segments	1
Coil elements	HE1-4	Tagging	None
Contrast		Dark blood	Off
TD	0 [ms]	Resp. control	Off
MTC	Off	Inline	
Magn. preparation	None	Subtract	0
Flip angle	40 [deg]	Std-Dev-Sag	0
Reconstruction	Magnitude	Std-Dev-Cor	0
Fat suppr.	None	Std-Dev-Tra	0
Water suppr.	None	Std-Dev-Time	0
Measurements	1	MIP-Sag	0
Resolution		MIP-Cor	0
Base resolution	192	MIP-Tra	0
Phase resolution	75 [%]	MIP-Time	0
Phase partial Fourier	Off	Save original images	1
Filter 1		Sequence	
Raw filter	On	Introduction	On
Intensity	Weak	Dimension	2D
Slope	25	Phase stabilisation	Off
Filter 2		Averaging mode	Short term
Large FoV	Off	Asymmetric echo	Off
Filter 3		Contrasts	1
Prescan Normalize	Off	Bandwidth	180 [Hz/Px]
Filter 4			
Normalize	On		
Unfiltered images	Off		
Filter 5			
Elliptical filter	Off		
Interpolation	Off		
PAT mode	None		
Matrix Coil Mode	Auto (CP)		
Geometry			

# SIEMENS MAGNETOM Avanto syngo MR 2004V

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Algorithm	Undefined
Sleep interv.	0 [ms]

# SIEMENS MAGNETOM Avanto syngo MR 2004V

**\\USER\\ADNI\\MAIN\_PHASE\\Human Protocol\\MPRAGE**

TA: 7:42    PAT: Off    Voxel size: 1.3x1.3x1.2 [mm]    Rel. SNR: 1.00    USER: tfl\_ADNI

<b>Routine</b>		SP1	Off
Slab group 1		SP7	Off
Slabs		SP5	Off
Dist. factor		Save uncombined	Off
Position		Scan at current TP	Off
Orientation		Scan region position	H
Phase enc. dir.		Scan region position	0 [mm]
Rotation		MSMA	S - C - T
Phase oversampling		Sagittal	R >> L
Slice oversampling		Coronal	A >> P
Slices per slab		Transversal	F >> H
FoV read		Shim mode	Standard
FoV phase		Adjust with body coil	Off
Slice thickness		Confirm freq. adjustment	Off
TR		Assume Silicone	Off
TE		Ref. amplitude [1H]	Use Default Value [V]
Averages		Adjust volume	
Concatenations		Position	L0.0 A20.0 H0.0 [mm]
Filter		Orientation	Sagittal
Coil elements		Rotation	0 [deg]
		F >> H	240 [mm]
		A >> P	240 [mm]
		R >> L	192 [mm]
<b>Contrast</b>		<b>Physio</b>	
Magn. preparation		1st Signal/Mode	None
TI		Dark blood	Off
Flip angle		Resp. control	Off
Reconstruction		<b>Inline</b>	
Fat suppr.		Subtract	0
Water suppr.		Std-Dev-Sag	0
Measurements		Std-Dev-Cor	0
		Std-Dev-Tra	0
		Std-Dev-Time	0
		MIP-Sag	0
		MIP-Cor	0
		MIP-Tra	0
		MIP-Time	0
		Save original images	1
<b>Resolution</b>		<b>Sequence</b>	
Base resolution		Introduction	On
Phase resolution		Dimension	3D
Slice resolution		Elliptical scanning	Off
Phase partial Fourier		Averaging mode	Long term
Slice partial Fourier		Asymmetric echo	Off
Filter 1		Bandwidth	180 [Hz/Px]
Raw filter		Flow comp.	No
Filter 2		Echo spacing	8.2 [ms]
Large FoV		RF pulse type	Fast
Filter 3		Gradient mode	Fast*
Prescan Normalize		Excitation	Non-sel.
Filter 4		RF spoiling	On
Normalize		Algorithm	Undefined
Filter 5		Sleep interv.	0 [ms]
Elliptical filter			
Interpolation			
PAT mode			
Matrix Coil Mode			
<b>Geometry</b>			
Multi-slice mode			
Series			
<b>System</b>			
Body			
HE2			
HE4			
HE1			
HE3			
SP4			
SP2			
SP8			
SP6			
SP3			

# SIEMENS MAGNETOM Avanto syngo MR 2004V

\USER\ADNI\MAIN\_PHASE\Human Protocol\MPRAGE Repeat

TA: 7:42 PAT: Off Voxel size: 1.3x1.3x1.2 [mm] Rel. SNR: 1.00 USER: tfl\_ADNI

Routine	SP1	Off
Slab group 1	SP7	Off
Slabs	SP5	Off
Dist. factor	Save uncombined	Off
Position	Scan at current TP	Off
Orientation	Scan region position	H
Phase enc. dir.	Scan region position	0 [mm]
Rotation	MSMA	S - C - T
Phase oversampling	Sagittal	R >> L
Slice oversampling	Coronal	A >> P
Slices per slab	Transversal	F >> H
FoV read	Shim mode	Standard
FoV phase	Adjust with body coil	Off
Slice thickness	Confirm freq. adjustment	Off
TR	Assume Silicone	Off
TE	Ref. amplitude [1H]	Use Default Value [V]
Averages	Adjust volume	
Concatenations	Position	L0.0 A20.0 H0.0 [mm]
Filter	Orientation	Sagittal
Coil elements	Rotation	0 [deg]
Contrast	F >> H	240 [mm]
Magn. preparation	A >> P	240 [mm]
TI	R >> L	192 [mm]
Flip angle	Physio	
Reconstruction	1st Signal/Mode	None
Fat suppr.	Dark blood	Off
Water suppr.	Resp. control	Off
Measurements	Resolution	
Base resolution	Inline	
Phase resolution	Subtract	0
Slice resolution	Std-Dev-Sag	0
Phase partial Fourier	Std-Dev-Cor	0
Slice partial Fourier	Std-Dev-Tra	0
Filter 1	Std-Dev-Time	0
Raw filter	MIP-Sag	0
Filter 2	MIP-Cor	0
Large FoV	MIP-Tra	0
Filter 3	MIP-Time	0
Prescan Normalize	Save original images	1
Filter 4	Geometry	
Normalize	Introduction	On
Filter 5	Dimension	3D
Elliptical filter	Elliptical scanning	Off
Interpolation	Averaging mode	Long term
PAT mode	Asymmetric echo	Off
Matrix Coil Mode	Bandwidth	180 [Hz/Px]
Geometry	Flow comp.	No
Multi-slice mode	Echo spacing	8.2 [ms]
Series	System	
Body	RF pulse type	Fast
HE2	Gradient mode	Fast*
HE4	Excitation	Non-sel.
HE1	RF spoiling	On
HE3	Algorithm	Undefined
SP4	Sleep interv.	0 [ms]
SP2		
SP8		
SP6		
SP3		

# SIEMENS MAGNETOM Avanto syngo MR 2004V

\USER\ADNI\MAIN\_PHASE\Human Protocol\B1-calibration Head

TA: 0:42 PAT: Off Voxel size: 2.3x2.3x2.5 [mm] Rel. SNR: 1.00 USER: gre\_ADNI

Routine		Scan at current TP	On
Slab group 1		MSMA	S - C - T
Slabs	1	Sagittal	R >> L
Dist. factor	20 [%]	Coronal	A >> P
Position	Isocenter	Transversal	F >> H
Orientation	Sagittal		
Phase enc. dir.	A >> P	Shim mode	Standard
Rotation	0 [deg]	Adjust with body coil	Off
Phase oversampling	0 [%]	Confirm freq. adjustment	Off
Slice oversampling	0 [%]	Assume Silicone	Off
Slices per slab	96	Ref. amplitude [1H]	Use Default Value [V]
FoV read	300 [mm]	Adjust volume	
FoV phase	100.0 [%]	Position	Isocenter
Slice thickness	2.5 [mm]	Orientation	Sagittal
TR	3.3 [ms]	Rotation	0 [deg]
TE	1.08 [ms]	F >> H	300 [mm]
Averages	1	A >> P	300 [mm]
Concatenations	1	R >> L	240 [mm]
Filter	None		
Coil elements	HE1-4		
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	Segments	1
Flip angle	2 [deg]	Tagging	None
Reconstruction	Magnitude	Dark blood	Off
Fat suppr.	None	Resp. control	Off
Water suppr.	None		
Measurements	1		
Resolution		Inline	
Base resolution	128	Subtract	0
Phase resolution	100 [%]	Std-Dev-Sag	0
Slice resolution	100 [%]	Std-Dev-Cor	0
Phase partial Fourier	Off	Std-Dev-Tra	0
Slice partial Fourier	Off	Std-Dev-Time	0
Filter 1		MIP-Sag	0
Raw filter	Off	MIP-Cor	0
Filter 2		MIP-Tra	0
Large FoV	Off	MIP-Time	0
Filter 3		Save original images	1
Prescan Normalize	Off		
Filter 4		Wash - In	0
Normalize	Off	Wash - Out	0
Filter 5		TTP	0
Elliptical filter	Off	PEI	0
Interpolation	Off	MIP - time	0
PAT mode	None		
Matrix Coil Mode	Auto (CP)	Sequence	
Geometry		Introduction	On
Multi-slice mode	Interleaved	Dimension	3D
Series	Interleaved	Elliptical scanning	Off
Saturation mode	Standard	Phase stabilisation	Off
Special sat.	None	Averaging mode	Long term
System		Asymmetric echo	Off
Body	Off	Contrasts	1
HE1	On	Bandwidth	980 [Hz/Px]
HE3	On	Flow comp.	No
HE2	On		
HE4	On	RF pulse type	Fast
Save uncombined	Off	Gradient mode	Fast
		Excitation	Non-sel.
		RF spoiling	On
		Algorithm	Undefined
		Sleep interv.	0 [ms]

# SIEMENS MAGNETOM Avanto syngo MR 2004V

\USER\ADNI\MAIN\_PHASE\Human Protocol\B1-calibration Body

TA: 0:42 PAT: Off Voxel size: 2.3x2.3x2.5 [mm] Rel. SNR: 1.00 USER: gre\_ADNI

Routine		Scan at current TP	On
Slab group 1		MSMA	S - C - T
Slabs	1	Sagittal	R >> L
Dist. factor	20 [%]	Coronal	A >> P
Position	Isocenter	Transversal	F >> H
Orientation	Sagittal		
Phase enc. dir.	A >> P	Shim mode	Standard
Rotation	0 [deg]	Adjust with body coil	Off
Phase oversampling	0 [%]	Confirm freq. adjustment	Off
Slice oversampling	0 [%]	Assume Silicone	Off
Slices per slab	96	Ref. amplitude [1H]	Use Default Value [V]
FoV read	300 [mm]	Adjust volume	
FoV phase	100.0 [%]	Position	Isocenter
Slice thickness	2.5 [mm]	Orientation	Sagittal
TR	3.3 [ms]	Rotation	0 [deg]
TE	1.08 [ms]	F >> H	300 [mm]
Averages	1	A >> P	300 [mm]
Concatenations	1	R >> L	240 [mm]
Filter	None		
Coil elements	BC		
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	Segments	1
Flip angle	2 [deg]	Tagging	None
Reconstruction	Magnitude	Dark blood	Off
Fat suppr.	None	Resp. control	Off
Water suppr.	None		
Measurements	1	Inline	
Resolution		Subtract	0
Base resolution	128	Std-Dev-Sag	0
Phase resolution	100 [%]	Std-Dev-Cor	0
Slice resolution	100 [%]	Std-Dev-Tra	0
Phase partial Fourier	Off	Std-Dev-Time	0
Slice partial Fourier	Off	MIP-Sag	0
Filter 1		MIP-Cor	0
Raw filter	Off	MIP-Tra	0
Filter 2		MIP-Time	0
Large FoV	Off	Save original images	1
Filter 3			
Prescan Normalize	Off	Wash - In	0
Filter 4		Wash - Out	0
Normalize	Off	TTP	0
Filter 5		PEI	0
Elliptical filter	Off	MIP - time	0
Interpolation	Off		
PAT mode	None	Sequence	
Matrix Coil Mode	Auto (CP)	Introduction	On
Geometry		Dimension	3D
Multi-slice mode	Interleaved	Elliptical scanning	Off
Series	Interleaved	Phase stabilisation	Off
Saturation mode	Standard	Averaging mode	Long term
Special sat.	None	Asymmetric echo	Off
System		Contrasts	1
Body	On	Bandwidth	980 [Hz/Px]
HE1	Off	Flow comp.	No
HE3	Off		
HE2	Off	RF pulse type	Fast
HE4	Off	Gradient mode	Fast
Save uncombined	Off	Excitation	Non-sel.
		RF spoiling	On
		Algorithm	Undefined
		Sleep interv.	0 [ms]

# SIEMENS MAGNETOM Avanto syngo MR 2004V

\USER\ADNI\MAIN\_PHASE\Human Protocol\Axial PD-T2 TSE

TA: 6:50 PAT: Off Voxel size: 0.9x0.9x3.0 [mm] Rel. SNR: 1.00 SIEMENS: tse

Routine			
Slice group 1		SP8	Off
Slices	48	SP6	Off
Dist. factor	0 [%]	SP3	Off
Position	Isocenter	SP1	Off
Orientation	Transversal	SP7	Off
Phase enc. dir.	R >> L	SP5	Off
Rotation	90 [deg]		
Phase oversampling	0 [%]	Save uncombined	Off
FoV read	240 [mm]	Scan at current TP	On
FoV phase	89.1 [%]	MSMA	S - C - T
Slice thickness	3 [mm]	Sagittal	R >> L
TR	3000 [ms]	Coronal	A >> P
TE[1]	12 [ms]	Transversal	F >> H
TE[2]	97 [ms]		
Averages	1	Shim mode	Standard
Concatenations	4	Adjust with body coil	Off
Filter	Prescan Normalize, Elliptical filter	Confirm freq. adjustment	Off
Coil elements	HE1-4	Assume Silicone	Off
Contrast		Ref. amplitude [1H]	Use Default Value [V]
TD	0 [ms]	Adjust volume	
MTC	Off	Position	Isocenter
Magn. preparation	None	Orientation	Transversal
Flip angle	150 [deg]	Rotation	90 [deg]
Reconstruction	Magnitude	A >> P	240 [mm]
Fat suppr.	None	R >> L	214 [mm]
Fat sat. mode	Strong	F >> H	144 [mm]
Water suppr.	None		
Measurements	1	Physio	
Resolution		1st Signal/Mode	None
Base resolution	256	Dark blood	Off
Phase resolution	100 [%]	Resp. control	Off
Phase partial Fourier	Off		
Filter 1		Inline	
Raw filter	Off	Subtract	0
Filter 2		Std-Dev-Sag	0
Large FoV	Off	Std-Dev-Cor	0
Filter 3		Std-Dev-Tra	0
Prescan Normalize	On	Std-Dev-Time	0
Unfiltered images	Off	MIP-Sag	0
Filter 4		MIP-Cor	0
Normalize	Off	MIP-Tra	0
Filter 5		MIP-Time	0
Elliptical filter	On	Save original images	1
Interpolation	Off		
PAT mode	None	Sequence	
Matrix Coil Mode	Auto (CP)	Introduction	On
Geometry		Dimension	2D
Multi-slice mode	Interleaved	Compensate T2 decay	Off
Series	Interleaved	Averaging mode	Long term
Special sat.	None	Contrasts	2
		Bandwidth	163 [Hz/Px]
System		Flow comp.	No
Body	Off	Allowed delay	30 [s]
HE2	On	Echo spacing	12.1 [ms]
HE4	On		
HE1	On	Turbo factor	7
HE3	On	RF pulse type	Low SAR
SP4	Off	Gradient mode	Normal
SP2	Off		
		Algorithm	Undefined
		Sleep interv.	0 [ms]

# SIEMENS MAGNETOM Avanto syngo MR 2004V

\USER\ADNI\MAIN\_PHASE\Phantom Protocol\QC Phantom-Localizer

+ TA: 0:10 PAT: Off Voxel size: 1.9x1.5x8.0 [mm] Rel. SNR: 1.00 SIEMENS: gre

Routine		Multi-slice mode	Sequential
Slice group 1		Series	Ascending
Slices	1	Saturation mode	Standard
Dist. factor	20 [%]	Special sat.	None
Position	Isocenter		
Orientation	Sagittal		
Phase enc. dir.	A >> P		
Rotation	0 [deg]		
Slice group 2		System	
Slices	1	Body	Off
Dist. factor	20 [%]	HE1	On
Position	Isocenter	HE3	On
Orientation	Coronal	HE2	On
Phase enc. dir.	R >> L	HE4	On
Rotation	0 [deg]		
Slice group 3		Save uncombined	Off
Slices	1	Scan at current TP	On
Dist. factor	20 [%]	MSMA	S - C - T
Position	Isocenter	Sagittal	R >> L
Orientation	Transversal	Coronal	A >> P
Phase enc. dir.	R >> L	Transversal	F >> H
Rotation	90 [deg]		
Phase oversampling	0 [%]	Shim mode	Tune up
FoV read	280 [mm]	Adjust with body coil	Off
FoV phase	100.0 [%]	Confirm freq. adjustment	Off
Slice thickness	8 [mm]	Assume Silicone	Off
TR	20 [ms]	Ref. amplitude [1H]	Use Default Value [V]
TE	5 [ms]	Adjust volume	
Averages	1	Position	Isocenter
Concatenations	3	Orientation	Transversal
Filter	Raw filter, Normalize	Rotation	0 [deg]
Coil elements	HE1-4	R >> L	350 [mm]
		A >> P	263 [mm]
		F >> H	350 [mm]
Contrast			
TD	0 [ms]	Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	Segments	1
Flip angle	40 [deg]		
Reconstruction	Magnitude	Tagging	None
Fat suppr.	None	Dark blood	Off
Water suppr.	None		
Measurements	1	Resp. control	Off
Resolution			
Base resolution	192	Inline	
Phase resolution	75 [%]	Subtract	0
Phase partial Fourier	Off	Std-Dev-Sag	0
Filter 1		Std-Dev-Cor	0
Raw filter	On	Std-Dev-Tra	0
Intensity	Weak	Std-Dev-Time	0
Slope	25	MIP-Sag	0
Filter 2		MIP-Cor	0
Large FoV	Off	MIP-Tra	0
Filter 3		MIP-Time	0
Prescan Normalize	Off	Save original images	1
Filter 4			
Normalize	On	Wash - In	0
Unfiltered images	Off	Wash - Out	0
Filter 5		TTP	0
Elliptical filter	Off	PEI	0
Interpolation	Off	MIP - time	0
PAT mode	None		
Matrix Coil Mode	Auto (CP)	Sequence	
Geometry		Introduction	On
		Dimension	2D
		Phase stabilisation	Off
		Averaging mode	Short term
		Asymmetric echo	Off
		Contrasts	1
		Bandwidth	180 [Hz/Px]

# SIEMENS MAGNETOM Avanto syngo MR 2004V

Flow comp.	No
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Algorithm	Undefined
Sleep interv.	0 [ms]

# SIEMENS MAGNETOM Avanto syngo MR 2004V

\USER\ADNI\MAIN\_PHASE\Phantom Protocol\QC Phantom Sagittal MPRAGE

TA: 7:42 PAT: Off Voxel size: 1.3x1.3x1.3 [mm] Rel. SNR: 1.00 USER: tfl\_ADNI

Routine	SP1	Off
Slab group 1	SP7	Off
Slabs	SP5	Off
Dist. factor	Save uncombined	Off
Position	Scan at current TP	Off
Orientation	Scan region position	H
Phase enc. dir.	Scan region position	0 [mm]
Rotation	MSMA	S - C - T
Phase oversampling	Sagittal	R >> L
Slice oversampling	Coronal	A >> P
Slices per slab	Transversal	F >> H
FoV read	Shim mode	Standard
FoV phase	Adjust with body coil	Off
Slice thickness	Confirm freq. adjustment	Off
TR	Assume Silicone	Off
TE	Ref. amplitude [1H]	Use Default Value [V]
Averages	Adjust volume	
Concatenations	Position	L0.0 A20.0 H0.0 [mm]
Filter	Orientation	Sagittal
Coil elements	Rotation	0 [deg]
Contrast	F >> H	240 [mm]
Magn. preparation	A >> P	240 [mm]
TI	R >> L	208 [mm]
Flip angle	Physio	
Reconstruction	1st Signal/Mode	None
Fat suppr.	Dark blood	Off
Water suppr.	Resp. control	Off
Measurements	Resolution	
Base resolution	Inline	
Phase resolution	Subtract	0
Slice resolution	Std-Dev-Sag	0
Phase partial Fourier	Std-Dev-Cor	0
Slice partial Fourier	Std-Dev-Tra	0
Filter 1	Std-Dev-Time	0
Raw filter	MIP-Sag	0
Filter 2	MIP-Cor	0
Large FoV	MIP-Tra	0
Filter 3	MIP-Time	0
Prescan Normalize	Save original images	1
Filter 4	Geometry	
Normalize	Introduction	On
Filter 5	Dimension	3D
Elliptical filter	Elliptical scanning	Off
Interpolation	Averaging mode	Long term
PAT mode	Asymmetric echo	Off
Matrix Coil Mode	Bandwidth	180 [Hz/Px]
Geometry	Flow comp.	No
Multi-slice mode	Echo spacing	8.2 [ms]
Series	System	
Body	RF pulse type	Fast
HE2	Gradient mode	Fast*
HE4	Excitation	Non-sel.
HE1	RF spoiling	On
HE3	Algorithm	Undefined
SP4	Sleep interv.	0 [ms]
SP2		
SP8		
SP6		
SP3		