

SIEMENS MAGNETOM TrioTim syngo MR B15

\\USER\INVESTIGATORS\Ravi\ADNI Human Protocol\Localizer

TA: 0:10 PAT: Off Voxel size: 1.9x1.5x8.0 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	Off
Wait for user to start	Off
Start measurements	single

Routine

Slice group 1	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Slice group 2	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Coronal
Phase enc. dir.	R >> L
Rotation	0.00 deg
Slice group 3	
Slices	1
Dist. factor	20 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	280 mm
FoV phase	100.0 %
Slice thickness	8.0 mm
TR	20.0 ms
TE	5.00 ms
Averages	1
Concatenations	3
Filter	Raw filter, Distortion Corr.(2D), Normalize
Coil elements	HEA;HEP

Contrast

TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	40 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

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

Resolution

Base resolution	192
Phase resolution	75 %
Phase partial Fourier	Off
Interpolation	Off

PAT mode	None
Matrix Coil Mode	Auto (CP)

Image Filter	Off
Distortion Corr.	On
Mode	2D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	On
Raw filter	On
Intensity	Weak
Slope	25
Elliptical filter	Off

Geometry

Multi-slice mode	Sequential
Series	Ascending

Saturation mode	Standard
Special sat.	None

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System

Body	Off
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off

Positioning mode	REF
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
Auto Coil Select	Default

Shim mode	Tune up
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
Ref. amplitude 1H	259.015 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

SIEMENS MAGNETOM TrioTim syngo MR B15

Physio

1st Signal/Mode	None
Segments	1

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

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Off
Contrasts	1
Bandwidth	180 Hz/Px
Flow comp.	No
Allowed delay	0 s

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

SIEMENS MAGNETOM TrioTim syngo MR B15

\\USER\INVESTIGATORS\Ravi\ADNI Human Protocol\MPRAGE

TA: 9:14 PAT: Off Voxel size: 1.0x1.0x1.2 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

Routine

Slab group 1	
Slabs	1
Dist. factor	50 %
Position	L0.8 A23.1 H3.8
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	93.8 %
Slice thickness	1.20 mm
TR	2300 ms
TE	2.91 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Magn. preparation	Non-sel. IR
TI	900 ms
Flip angle	9 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	256
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
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
Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System

Body	Off
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
Ref. amplitude 1H	259.015 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.8 A23.1 H3.8
Orientation	Sagittal
Rotation	0.00 deg
F >> H	256 mm
A >> P	240 mm
R >> L	192 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

SIEMENS MAGNETOM TrioTim syngo MR B15

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Off
Bandwidth	240 Hz/Px
Flow comp.	No
Echo spacing	6.8 ms

RF pulse type	Fast
Gradient mode	Fast*
Excitation	Non-sel.
RF spoiling	On

SIEMENS MAGNETOM TrioTim syngo MR B15

\\USER\INVESTIGATORS\Ravi\ADNI Human Protocol\MPRAGE Repeat
 TA: 9:14 PAT: Off Voxel size: 1.0x1.0x1.2 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

Routine

Slab group 1	
Slabs	1
Dist. factor	50 %
Position	L0.8 A23.1 H3.8
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	93.8 %
Slice thickness	1.20 mm
TR	2300 ms
TE	2.91 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

Magn. preparation	Non-sel. IR
TI	900 ms
Flip angle	9 deg
Fat suppr.	None
Water suppr.	None
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	256
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off
PAT mode	None
Matrix Coil Mode	Auto (CP)
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
Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System

Body	Off
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
Ref. amplitude 1H	259.015 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.8 A23.1 H3.8
Orientation	Sagittal
Rotation	0.00 deg
F >> H	256 mm
A >> P	240 mm
R >> L	192 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

SIEMENS MAGNETOM TrioTim syngo MR B15

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Off
Bandwidth	240 Hz/Px
Flow comp.	No
Echo spacing	6.8 ms

RF pulse type	Fast
Gradient mode	Fast*
Excitation	Non-sel.
RF spoiling	On

SIEMENS MAGNETOM TrioTim syngo MR B15

\\USER\INVESTIGATORS\Ravi\ADNI Human Protocol\B1-calibration Head

TA: 0:42 PAT: Off Voxel size: 2.3x2.3x2.5 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

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L0.8 A23.1 H3.8
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	96
FoV read	300 mm
FoV phase	100.0 %
Slice thickness	2.50 mm
TR	3.3 ms
TE	1.08 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HEA;HEP

Contrast

MTC	Off
Magn. preparation	None
Flip angle	2 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

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

Resolution

Base resolution	128
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

PAT mode	None
Matrix Coil Mode	Auto (CP)

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

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System

Body	Off
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
Ref. amplitude 1H	259.015 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.8 A23.1 H3.8
Orientation	Sagittal
Rotation	0.00 deg
F >> H	300 mm
A >> P	300 mm
R >> L	240 mm

Physio

1st Signal/Mode	None
Segments	1

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

SIEMENS MAGNETOM TrioTim syngo MR B15

MIP-Tra	Off
MIP-Time	Off
Save original images	On

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

Sequence

Introduction	On
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Contrasts	1
Bandwidth	980 Hz/Px
Flow comp.	No
Allowed delay	0 s

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

SIEMENS MAGNETOM TrioTim syngo MR B15

\\USER\INVESTIGATORS\Ravi\ADNI Human Protocol\B1-calibration Body

TA: 0:42 PAT: Off Voxel size: 2.3x2.3x2.5 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

Slab group 1	
Slabs	1
Dist. factor	20 %
Position	L0.8 A23.1 H3.8
Orientation	Sagittal
Phase enc. dir.	A >> P
Rotation	0.00 deg
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	96
FoV read	300 mm
FoV phase	100.0 %
Slice thickness	2.50 mm
TR	3.3 ms
TE	1.08 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	BC

Contrast

MTC	Off
Magn. preparation	None
Flip angle	2 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

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

Resolution

Base resolution	128
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

PAT mode	None
Matrix Coil Mode	Auto (CP)

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

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System

Body	On
HEP	Off
HEA	Off
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
Ref. amplitude 1H	259.015 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.8 A23.1 H3.8
Orientation	Sagittal
Rotation	0.00 deg
F >> H	300 mm
A >> P	300 mm
R >> L	240 mm

Physio

1st Signal/Mode	None
Segments	1

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

SIEMENS MAGNETOM TrioTim syngo MR B15

MIP-Tra	Off
MIP-Time	Off
Save original images	On

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

Sequence

Introduction	On
Dimension	3D
Elliptical scanning	Off
Phase stabilisation	Off
Asymmetric echo	Off
Contrasts	1
Bandwidth	980 Hz/Px
Flow comp.	No
Allowed delay	0 s

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

SIEMENS MAGNETOM TrioTim syngo MR B15

\\USER\INVESTIGATORS\Ravi\ADNI Human Protocol\Axial PD-T2 TSE

TA: 5:08 PAT: Off Voxel size: 0.9x0.9x3.0 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	48
Dist. factor	0 %
Position	L0.0 A22.1 H3.5
Orientation	Transversal
Phase enc. dir.	R >> L
Rotation	90.00 deg
Phase oversampling	0 %
FoV read	240 mm
FoV phase	89.1 %
Slice thickness	3.0 mm
TR	3000 ms
TE 1	11 ms
TE 2	99 ms
Averages	1
Concatenations	3
Filter	Prescan Normalize, Elliptical filter
Coil elements	HEA;HEP

Contrast

TD	0.0 ms
MTC	Off
Magn. preparation	None
Flip angle	150 deg
Fat suppr.	None
Fat sat. mode	Strong
Water suppr.	None
Restore magn.	Off

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Off

Resolution

Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Trajectory	Cartesian
Interpolation	Off

PAT mode	None
Matrix Coil Mode	Auto (CP)

Image Filter	Off
Distortion Corr.	Off
Unfiltered images	Off

Prescan Normalize	On
Normalize	Off
Raw filter	Off
Elliptical filter	On
Mode	Inplane

Geometry

Multi-slice mode	Interleaved
Series	Interleaved

Special sat.	None

Set-n-Go Protocol	Off
Table position	H
Table position	0 mm
Inline Composing	Off

System

Body	Off
HEP	On
HEA	On
SP4	Off
SP2	Off
SP8	Off
SP6	Off
SP3	Off
SP1	Off
SP7	Off
SP5	Off

Positioning mode	FIX
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Save uncombined	Off
Coil Combine Mode	Sum of Squares
Auto Coil Select	Default

Shim mode	Standard
Adjust with body coil	Off
Confirm freq. adjustment	Off
Assume Silicone	Off
Ref. amplitude 1H	259.015 V
Adjustment Tolerance	Auto
Adjust volume	
Position	L0.0 A22.1 H3.5
Orientation	Transversal
Rotation	90.00 deg
A >> P	240 mm
R >> L	214 mm
F >> H	144 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

SIEMENS MAGNETOM TrioTim syngo MR B15

MIP-Tra	Off
MIP-Time	Off
Save original images	On

Sequence

Introduction	On
Dimension	2D
Compensate T2 decay	Off
Reduce Motion Sens.	Off
Contrasts	2
Bandwidth	181 Hz/Px
Flow comp.	No
Allowed delay	30 s
Echo spacing	11 ms

Define	Turbo factor
Turbo factor	7
Echo trains per slice	33
RF pulse type	Low SAR
Gradient mode	Fast

Table of contents

\\USER	INVESTIGATORS		
	Ravi	ADNI Human Protocol	
		Localizer	
		MPRAGE	
		MPRAGE Repeat	
		B1-calibration Head	
		Turn Body Coil on.	
		B1-calibration Body	
		Turn Head Coil Array on.	
		Axial PD-T2 TSE	