

SIEMENS MAGNETOM Avanto syngo MR 2004V

\\USER\ADN\MAIN_PHASE\Human Protocol\localizer

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

Routine

| | |
|--------------------|-----------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 20 [%] |
| Position | Isocenter |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0 [deg] |
| Slice group 2 | |
| Slices | 1 |
| Dist. factor | 20 [%] |
| Position | Isocenter |
| Orientation | Coronal |
| Phase enc. dir. | R >> L |
| Rotation | 0 [deg] |
| Slice group 3 | |
| Slices | 1 |
| Dist. factor | 20 [%] |
| Position | Isocenter |
| Orientation | Transversal |
| Phase enc. dir. | R >> L |
| Rotation | 90 [deg] |
| Phase oversampling | 0 [%] |
| FoV read | 280 [mm] |
| FoV phase | 100.0 [%] |
| Slice thickness | 8 [mm] |
| TR | 20 [ms] |
| TE | 5 [ms] |
| Averages | 1 |
| Concatenations | 3 |
| Filter | Raw filter, Normalize |
| Coil elements | HE1-4 |

Contrast

| | |
|-------------------|-----------|
| TD | 0 [ms] |
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 40 [deg] |
| Reconstruction | Magnitude |
| Fat suppr. | None |
| Water suppr. | None |
| Measurements | 1 |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 192 |
| Phase resolution | 75 [%] |
| Phase partial Fourier | Off |
| Filter 1 | |
| Raw filter | On |
| Intensity | Weak |
| Slope | 25 |
| Filter 2 | |
| Large FoV | Off |
| Filter 3 | |
| Prescan Normalize | Off |
| Filter 4 | |
| Normalize | On |
| Unfiltered images | Off |
| Filter 5 | |
| Elliptical filter | Off |
| Interpolation | Off |
| ----- | |
| PAT mode | None |
| Matrix Coil Mode | Auto (CP) |

Geometry

Multi-slice mode Sequential
Series Ascending-----
Saturation mode Standard
Special sat. None

System

| | |
|--------------------------|-----------------------|
| Body | Off |
| HE1 | On |
| HE3 | On |
| HE2 | On |
| HE4 | On |
| ----- | |
| Save uncombined | Off |
| Scan at current TP | On |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| ----- | |
| Shim mode | Tune up |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| Ref. amplitude [1H] | Use Default Value [V] |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 0 [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 | 0 |
| Std-Dev-Sag | 0 |
| 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 |
| ----- | |
| Wash - In | 0 |
| Wash - Out | 0 |
| TTP | 0 |
| PEI | 0 |
| MIP - time | 0 |

Sequence

| | |
|---------------------|-------------|
| 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\ADN\MAIN_PHASE\Human Protocol\MPRAGE

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

Routine

| | |
|--------------------|----------------------|
| Slab group 1 | |
| Slabs | 1 |
| Dist. factor | 50 [%] |
| Position | L0.0 A20.0 H0.0 [mm] |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0 [deg] |
| Phase oversampling | 0 [%] |
| Slice oversampling | 20 [%] |
| Slices per slab | 160 |
| FoV read | 240 [mm] |
| FoV phase | 100.0 [%] |
| Slice thickness | 1.2 [mm] |
| TR | 2400 [ms] |
| TE | 3.5 [ms] |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HE1-4 |

Contrast

| | |
|-------------------|-------------|
| Magn. preparation | Non-sel. IR |
| T1 | 1000 [ms] |
| Flip angle | 8 [deg] |
| Reconstruction | Magnitude |
| Fat suppr. | None |
| Water suppr. | None |
| Measurements | 1 |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 192 |
| Phase resolution | 100 [%] |
| Slice resolution | 100 [%] |
| Phase partial Fourier | Off |
| Slice partial Fourier | Off |
| Filter 1 | |
| Raw filter | Off |
| Filter 2 | |
| Large FoV | Off |
| Filter 3 | |
| Prescan Normalize | Off |
| Filter 4 | |
| Normalize | Off |
| Filter 5 | |
| Elliptical filter | Off |
| Interpolation | Off |
| ----- | |
| PAT mode | None |
| Matrix Coil Mode | Auto (CP) |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Single shot |
| Series | Interleaved |

System

| | |
|------|-----|
| Body | Off |
| HE2 | On |
| HE4 | On |
| HE1 | On |
| HE3 | On |
| SP4 | Off |
| SP2 | Off |
| SP8 | Off |
| SP6 | Off |
| SP3 | Off |

| | |
|-----|-----|
| SP1 | Off |
| SP7 | Off |
| SP5 | Off |

| | |
|----------------------|-----------|
| ----- | |
| Save uncombined | Off |
| Scan at current TP | Off |
| Scan region position | H |
| Scan region position | 0 [mm] |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |

| | |
|--------------------------|-----------------------|
| ----- | |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| Ref. amplitude [1H] | Use Default Value [V] |
| Adjust volume | |
| Position | L0.0 A20.0 H0.0 [mm] |
| Orientation | Sagittal |
| Rotation | 0 [deg] |
| F >> H | 240 [mm] |
| A >> P | 240 [mm] |
| R >> L | 192 [mm] |

Physio

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

Inline

| | |
|----------------------|---|
| Subtract | 0 |
| Std-Dev-Sag | 0 |
| 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 |

Sequence

| | |
|---------------------|-------------|
| Introduction | On |
| Dimension | 3D |
| Elliptical scanning | Off |
| Averaging mode | Long term |
| Asymmetric echo | Off |
| Bandwidth | 180 [Hz/Px] |
| Flow comp. | No |
| Echo spacing | 8.2 [ms] |
| ----- | |
| RF pulse type | Fast |
| 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\MPRAGE Repeat

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

Routine

| | |
|--------------------|----------------------|
| Slab group 1 | |
| Slabs | 1 |
| Dist. factor | 50 [%] |
| Position | L0.0 A20.0 H0.0 [mm] |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0 [deg] |
| Phase oversampling | 0 [%] |
| Slice oversampling | 20 [%] |
| Slices per slab | 160 |
| FoV read | 240 [mm] |
| FoV phase | 100.0 [%] |
| Slice thickness | 1.2 [mm] |
| TR | 2400 [ms] |
| TE | 3.5 [ms] |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HE1-4 |

Contrast

| | |
|-------------------|-------------|
| Magn. preparation | Non-sel. IR |
| TI | 1000 [ms] |
| Flip angle | 8 [deg] |
| Reconstruction | Magnitude |
| Fat suppr. | None |
| Water suppr. | None |
| Measurements | 1 |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 192 |
| Phase resolution | 100 [%] |
| Slice resolution | 100 [%] |
| Phase partial Fourier | Off |
| Slice partial Fourier | Off |
| Filter 1 | |
| Raw filter | Off |
| Filter 2 | |
| Large FoV | Off |
| Filter 3 | |
| Prescan Normalize | Off |
| Filter 4 | |
| Normalize | Off |
| Filter 5 | |
| Elliptical filter | Off |
| Interpolation | Off |
| ----- | |
| PAT mode | None |
| Matrix Coil Mode | Auto (CP) |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Single shot |
| Series | Interleaved |

System

| | |
|------|-----|
| Body | Off |
| HE2 | On |
| HE4 | On |
| HE1 | On |
| HE3 | On |
| SP4 | Off |
| SP2 | Off |
| SP8 | Off |
| SP6 | Off |
| SP3 | Off |

| | |
|--------------------------|-----------------------|
| SP1 | Off |
| SP7 | Off |
| SP5 | Off |
| ----- | |
| Save uncombined | Off |
| Scan at current TP | Off |
| Scan region position | H |
| Scan region position | 0 [mm] |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| ----- | |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| Ref. amplitude [1H] | Use Default Value [V] |
| Adjust volume | |
| Position | L0.0 A20.0 H0.0 [mm] |
| Orientation | Sagittal |
| Rotation | 0 [deg] |
| F >> H | 240 [mm] |
| A >> P | 240 [mm] |
| R >> L | 192 [mm] |

Physio

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

Inline

| | |
|----------------------|---|
| Subtract | 0 |
| Std-Dev-Sag | 0 |
| 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 |

Sequence

| | |
|---------------------|-------------|
| Introduction | On |
| Dimension | 3D |
| Elliptical scanning | Off |
| Averaging mode | Long term |
| Asymmetric echo | Off |
| Bandwidth | 180 [Hz/Px] |
| Flow comp. | No |
| Echo spacing | 8.2 [ms] |
| ----- | |
| RF pulse type | Fast |
| 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 Head

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

Routine

| | |
|--------------------|-----------|
| Slab group 1 | |
| Slabs | 1 |
| Dist. factor | 20 [%] |
| Position | Isocenter |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0 [deg] |
| Phase oversampling | 0 [%] |
| Slice oversampling | 0 [%] |
| Slices per slab | 96 |
| FoV read | 300 [mm] |
| FoV phase | 100.0 [%] |
| Slice thickness | 2.5 [mm] |
| TR | 3.3 [ms] |
| TE | 1.08 [ms] |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HE1-4 |

Contrast

| | |
|-------------------|-----------|
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 2 [deg] |
| Reconstruction | Magnitude |
| Fat suppr. | None |
| Water suppr. | None |
| Measurements | 1 |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 128 |
| Phase resolution | 100 [%] |
| Slice resolution | 100 [%] |
| Phase partial Fourier | Off |
| Slice partial Fourier | Off |
| Filter 1 | |
| Raw filter | Off |
| Filter 2 | |
| Large FoV | Off |
| Filter 3 | |
| Prescan Normalize | Off |
| Filter 4 | |
| Normalize | Off |
| Filter 5 | |
| Elliptical filter | Off |
| Interpolation | Off |
| ----- | |
| PAT mode | None |
| Matrix Coil Mode | Auto (CP) |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Interleaved |
| Series | Interleaved |
| ----- | |
| Saturation mode | Standard |
| Special sat. | None |

System

| | |
|-----------------|-----|
| Body | Off |
| HE1 | On |
| HE3 | On |
| HE2 | On |
| HE4 | On |
| ----- | |
| Save uncombined | Off |

| | |
|--------------------|-----------|
| Scan at current TP | On |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |

| | |
|--------------------------|-----------------------|
| ----- | |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| Ref. amplitude [1H] | Use Default Value [V] |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Sagittal |
| Rotation | 0 [deg] |
| F >> H | 300 [mm] |
| A >> P | 300 [mm] |
| R >> L | 240 [mm] |

Physio

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

Inline

| | |
|----------------------|---|
| Subtract | 0 |
| Std-Dev-Sag | 0 |
| 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 |
| ----- | |
| Wash - In | 0 |
| Wash - Out | 0 |
| TTP | 0 |
| PEI | 0 |
| MIP - time | 0 |

Sequence

| | |
|---------------------|-------------|
| Introduction | On |
| Dimension | 3D |
| Elliptical scanning | Off |
| Phase stabilisation | Off |
| Averaging mode | Long term |
| Asymmetric echo | Off |
| Contrasts | 1 |
| Bandwidth | 980 [Hz/Px] |
| Flow comp. | No |
| ----- | |
| RF pulse type | Fast |
| 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

| | |
|--------------------|-----------|
| Slab group 1 | |
| Slabs | 1 |
| Dist. factor | 20 [%] |
| Position | Isocenter |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0 [deg] |
| Phase oversampling | 0 [%] |
| Slice oversampling | 0 [%] |
| Slices per slab | 96 |
| FoV read | 300 [mm] |
| FoV phase | 100.0 [%] |
| Slice thickness | 2.5 [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] |
| Reconstruction | Magnitude |
| Fat suppr. | None |
| Water suppr. | None |
| Measurements | 1 |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 128 |
| Phase resolution | 100 [%] |
| Slice resolution | 100 [%] |
| Phase partial Fourier | Off |
| Slice partial Fourier | Off |
| Filter 1 | |
| Raw filter | Off |
| Filter 2 | |
| Large FoV | Off |
| Filter 3 | |
| Prescan Normalize | Off |
| Filter 4 | |
| Normalize | Off |
| Filter 5 | |
| Elliptical filter | Off |
| Interpolation | Off |
| ----- | |
| PAT mode | None |
| Matrix Coil Mode | Auto (CP) |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Interleaved |
| Series | Interleaved |
| ----- | |
| Saturation mode | Standard |
| Special sat. | None |

System

| | |
|-----------------|-----|
| Body | On |
| HE1 | Off |
| HE3 | Off |
| HE2 | Off |
| HE4 | Off |
| ----- | |
| Save uncombined | Off |

| | |
|--------------------|-----------|
| Scan at current TP | On |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |

| | |
|--------------------------|-----------------------|
| ----- | |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| Ref. amplitude [1H] | Use Default Value [V] |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Sagittal |
| Rotation | 0 [deg] |
| F >> H | 300 [mm] |
| A >> P | 300 [mm] |
| R >> L | 240 [mm] |

Physio

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

Inline

| | |
|----------------------|---|
| Subtract | 0 |
| Std-Dev-Sag | 0 |
| 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 |
| ----- | |
| Wash - In | 0 |
| Wash - Out | 0 |
| TTP | 0 |
| PEI | 0 |
| MIP - time | 0 |

Sequence

| | |
|---------------------|-------------|
| Introduction | On |
| Dimension | 3D |
| Elliptical scanning | Off |
| Phase stabilisation | Off |
| Averaging mode | Long term |
| Asymmetric echo | Off |
| Contrasts | 1 |
| Bandwidth | 980 [Hz/Px] |
| Flow comp. | No |
| ----- | |
| RF pulse type | Fast |
| Gradient mode | Fast |
| Excitation | Non-sel. |
| RF spoiling | On |
| ----- | |
| Algorithm | Undefined |
| Sleep interv. | 0 [ms] |

SIEMENS MAGNETOM Avanto syngo MR 2004V

\\USER\ADN\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 | |
| Slices | 48 |
| Dist. factor | 0 [%] |
| Position | Isocenter |
| Orientation | Transversal |
| Phase enc. dir. | R >> L |
| Rotation | 90 [deg] |
| Phase oversampling | 0 [%] |
| FoV read | 240 [mm] |
| FoV phase | 89.1 [%] |
| Slice thickness | 3 [mm] |
| TR | 3000 [ms] |
| TE[1] | 12 [ms] |
| TE[2] | 97 [ms] |
| Averages | 1 |
| Concatenations | 4 |
| Filter | Prescan Normalize, Elliptical filter |
| Coil elements | HE1-4 |

Contrast

| | |
|-------------------|-----------|
| TD | 0 [ms] |
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 150 [deg] |
| Reconstruction | Magnitude |
| Fat suppr. | None |
| Fat sat. mode | Strong |
| Water suppr. | None |
| Measurements | 1 |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 256 |
| Phase resolution | 100 [%] |
| Phase partial Fourier | Off |
| Filter 1 | |
| Raw filter | Off |
| Filter 2 | |
| Large FoV | Off |
| Filter 3 | |
| Prescan Normalize | On |
| Unfiltered images | Off |
| Filter 4 | |
| Normalize | Off |
| Filter 5 | |
| Elliptical filter | On |
| Interpolation | Off |
| ----- | |
| PAT mode | None |
| Matrix Coil Mode | Auto (CP) |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Interleaved |
| Series | Interleaved |
| ----- | |
| Special sat. | None |

System

| | |
|------|-----|
| Body | Off |
| HE2 | On |
| HE4 | On |
| HE1 | On |
| HE3 | On |
| SP4 | Off |
| SP2 | Off |

| | |
|--------------------------|-----------------------|
| SP8 | Off |
| SP6 | Off |
| SP3 | Off |
| SP1 | Off |
| SP7 | Off |
| SP5 | Off |
| ----- | |
| Save uncombined | Off |
| Scan at current TP | On |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| ----- | |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| Ref. amplitude [1H] | Use Default Value [V] |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 90 [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 | 0 |
| Std-Dev-Sag | 0 |
| 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 |

Sequence

| | |
|---------------------|-------------|
| Introduction | On |
| Dimension | 2D |
| Compensate T2 decay | Off |
| Averaging mode | Long term |
| Contrasts | 2 |
| Bandwidth | 163 [Hz/Px] |
| Flow comp. | No |
| Allowed delay | 30 [s] |
| Echo spacing | 12.1 [ms] |
| ----- | |
| Turbo factor | 7 |
| RF pulse type | Low SAR |
| Gradient mode | Normal |
| ----- | |
| 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

| | |
|--------------------|-----------------------|
| Slice group 1 | |
| Slices | 1 |
| Dist. factor | 20 [%] |
| Position | Isocenter |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0 [deg] |
| Slice group 2 | |
| Slices | 1 |
| Dist. factor | 20 [%] |
| Position | Isocenter |
| Orientation | Coronal |
| Phase enc. dir. | R >> L |
| Rotation | 0 [deg] |
| Slice group 3 | |
| Slices | 1 |
| Dist. factor | 20 [%] |
| Position | Isocenter |
| Orientation | Transversal |
| Phase enc. dir. | R >> L |
| Rotation | 90 [deg] |
| Phase oversampling | 0 [%] |
| FoV read | 280 [mm] |
| FoV phase | 100.0 [%] |
| Slice thickness | 8 [mm] |
| TR | 20 [ms] |
| TE | 5 [ms] |
| Averages | 1 |
| Concatenations | 3 |
| Filter | Raw filter, Normalize |
| Coil elements | HE1-4 |

Contrast

| | |
|-------------------|-----------|
| TD | 0 [ms] |
| MTC | Off |
| Magn. preparation | None |
| Flip angle | 40 [deg] |
| Reconstruction | Magnitude |
| Fat suppr. | None |
| Water suppr. | None |
| Measurements | 1 |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 192 |
| Phase resolution | 75 [%] |
| Phase partial Fourier | Off |
| Filter 1 | |
| Raw filter | On |
| Intensity | Weak |
| Slope | 25 |
| Filter 2 | |
| Large FoV | Off |
| Filter 3 | |
| Prescan Normalize | Off |
| Filter 4 | |
| Normalize | On |
| Unfiltered images | Off |
| Filter 5 | |
| Elliptical filter | Off |
| Interpolation | Off |
| ----- | |
| PAT mode | None |
| Matrix Coil Mode | Auto (CP) |

Geometry

| | |
|------------------|------------|
| Multi-slice mode | Sequential |
| Series | Ascending |
| ----- | |
| Saturation mode | Standard |
| Special sat. | None |
| ----- | |

System

| | |
|--------------------------|-----------------------|
| Body | Off |
| HE1 | On |
| HE3 | On |
| HE2 | On |
| HE4 | On |
| ----- | |
| Save uncombined | Off |
| Scan at current TP | On |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| ----- | |
| Shim mode | Tune up |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| Ref. amplitude [1H] | Use Default Value [V] |
| Adjust volume | |
| Position | Isocenter |
| Orientation | Transversal |
| Rotation | 0 [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 | 0 |
| Std-Dev-Sag | 0 |
| 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 |
| ----- | |
| Wash - In | 0 |
| Wash - Out | 0 |
| TTP | 0 |
| PEI | 0 |
| MIP - time | 0 |

Sequence

| | |
|---------------------|-------------|
| 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

| | |
|--------------------|----------------------|
| Slab group 1 | |
| Slabs | 1 |
| Dist. factor | 50 [%] |
| Position | L0.0 A20.0 H0.0 [mm] |
| Orientation | Sagittal |
| Phase enc. dir. | A >> P |
| Rotation | 0 [deg] |
| Phase oversampling | 0 [%] |
| Slice oversampling | 20 [%] |
| Slices per slab | 160 |
| FoV read | 240 [mm] |
| FoV phase | 100.0 [%] |
| Slice thickness | 1.3 [mm] |
| TR | 2400 [ms] |
| TE | 3.5 [ms] |
| Averages | 1 |
| Concatenations | 1 |
| Filter | None |
| Coil elements | HE1-4 |

Contrast

| | |
|-------------------|-------------|
| Magn. preparation | Non-sel. IR |
| TI | 1000 [ms] |
| Flip angle | 8 [deg] |
| Reconstruction | Magnitude |
| Fat suppr. | None |
| Water suppr. | None |
| Measurements | 1 |

Resolution

| | |
|-----------------------|-----------|
| Base resolution | 192 |
| Phase resolution | 100 [%] |
| Slice resolution | 100 [%] |
| Phase partial Fourier | Off |
| Slice partial Fourier | Off |
| Filter 1 | |
| Raw filter | Off |
| Filter 2 | |
| Large FoV | Off |
| Filter 3 | |
| Prescan Normalize | Off |
| Filter 4 | |
| Normalize | Off |
| Filter 5 | |
| Elliptical filter | Off |
| Interpolation | Off |
| ----- | |
| PAT mode | None |
| Matrix Coil Mode | Auto (CP) |

Geometry

| | |
|------------------|-------------|
| Multi-slice mode | Single shot |
| Series | Interleaved |

System

| | |
|------|-----|
| Body | Off |
| HE2 | On |
| HE4 | On |
| HE1 | On |
| HE3 | On |
| SP4 | Off |
| SP2 | Off |
| SP8 | Off |
| SP6 | Off |
| SP3 | Off |

| | |
|--------------------------|-----------------------|
| SP1 | Off |
| SP7 | Off |
| SP5 | Off |
| ----- | |
| Save uncombined | Off |
| Scan at current TP | Off |
| Scan region position | H |
| Scan region position | 0 [mm] |
| MSMA | S - C - T |
| Sagittal | R >> L |
| Coronal | A >> P |
| Transversal | F >> H |
| ----- | |
| Shim mode | Standard |
| Adjust with body coil | Off |
| Confirm freq. adjustment | Off |
| Assume Silicone | Off |
| Ref. amplitude [1H] | Use Default Value [V] |
| Adjust volume | |
| Position | L0.0 A20.0 H0.0 [mm] |
| Orientation | Sagittal |
| Rotation | 0 [deg] |
| F >> H | 240 [mm] |
| A >> P | 240 [mm] |
| R >> L | 208 [mm] |

Physio

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

Inline

| | |
|----------------------|---|
| Subtract | 0 |
| Std-Dev-Sag | 0 |
| 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 |

Sequence

| | |
|---------------------|-------------|
| Introduction | On |
| Dimension | 3D |
| Elliptical scanning | Off |
| Averaging mode | Long term |
| Asymmetric echo | Off |
| Bandwidth | 180 [Hz/Px] |
| Flow comp. | No |
| Echo spacing | 8.2 [ms] |
| ----- | |
| RF pulse type | Fast |
| Gradient mode | Fast* |
| Excitation | Non-sel. |
| RF spoiling | On |
| ----- | |
| Algorithm | Undefined |
| Sleep interv. | 0 [ms] |