

| PATIENT POSITION | | IMAGING PARAMETERS | |
|----------------------|--------------------------|-------------------------|---|
| Patient Entry | Head First | Imaging Mode | 2D |
| Patient Position | Supine | Pulse Sequence | Spin Echo |
| Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | Seq, EDR, TRF, Fast, SS, ARC |
| Plane | 3-PLANE | Phase | 2.00 |
| Series Description | 3-Plane Localizer | | |
| SCAN TIMING | | SCAN RANGE | |
| TE | 80.0 | FOV | 30.0 |
| Number of Echoes | 1 | Slice Thickness | 15.00 |
| TR | 1635.0 | Slice Spacing | 0.0 |
| Receiver Bandwidth | 83.33 | Overlap Locations | 0 |
| | | Number of Slices | 21 |
| IMAGE ENHANCE | | ACQ TIMING | |
| Filter Choice | None | Freq | 256 |
| | | Phase | 192 |
| USER CVS | | Freq DIR | Unswap |
| User CV Mask2 | 0 | # of Acq. Before Pause | 0 |
| MULTI-PHASE | | Phase FOV | 1.00 |
| Seperate Series | 0 | Auto Shim | On |
| Mask Phase | 0 | Phase Correction | No |
| Mask Pause | 0 | RF Drive Mode | Single |
| Preserve | 0 | Excitation Mode | Selective |
| DIFFUSION | | FMRI | |
| Recon All Images | On | PSD Trigger | Internal |
| Multi b-values | 1000.0; | View Order | Bottom/Up |
| Multi NEX Values | 1.0; | # of Repetitions REST | 0 |
| # Synthetic b-values | 1 | # of Repetitions ACTIVE | 0 |
| Synthetic b-value | 1000.0; | | |
| CONTRAST | | SAT | |
| Contrast Yes/No | No | Tag Type | None |
| | | TRICKS | |
| | | Pause On/Off | On |
| | | Auto Subtract | 0 |
| | | Auto SCIC | Off |
| | | OTHERS | |
| | | Protocol Notes | <i>AIRx is optional software that provides automatic slice positioning for graphical prescriptions. Using pre-trained neural networks, AIRx calculates common Anatomical References from the 3-plane Localizer. To enable AIRx, acquire 3-plane Localizer with the following requirements: 10cm anatomical coverage, 80TE, 192 Phase Matrix. Subsequent scans must be set to Oblique plane.</i> |

3-Plane Localizer

3-Plane Localizer

| | | | | |
|-------------------------------------|--------------------------|-------------------------------------|---|---------------------|
| Accelerated Sagittal MPRAGE (MSV22) | PATIENT POSITION | | IMAGING PARAMETERS | |
| | Patient Entry | Head First | Imaging Mode | 3D |
| | Patient Position | Supine | Pulse Sequence | MP-RAGE |
| | Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | EDR, Fast, ARC, IrP |
| | Plane | SAGITTAL | Phase | 2.00 |
| | Series Description | Accelerated Sagittal MPRAGE (MSV22) | Slice | 1.00 |
| | SCAN TIMING | | SCAN RANGE | |
| | Flip Angle | 9 | FOV | 25.6 |
| | Number of Echoes | 1 | Slice Thickness | 1.00 |
| | TI | 900 | Location per Slab | 208 |
| | Receiver Bandwidth | 31.25 | Overlap Locations | 0 |
| | Recovery Time | 800 | Number of Slices | 1 |
| | IMAGE ENHANCE | | ACQ TIMING | |
| | Filter Choice | None | Freq | 256 |
| | USER CVS | | Phase | 256 |
| | User CV6 | 1.00 | Freq DIR | S/I |
| | User CV30 | 1.00 | Fat Shift DIR | Normal (S) |
| | User CV Mask2 | 0 | NEX | 1.00 |
| | MULTI-PHASE | | Phase FOV | 0.94 |
| | Seperate Series | 0 | Auto Shim | On |
| | Trigger Delay without AV | 0 | Phase Correction | No |
| | Mask Phase | 0 | RF Drive Mode | Single |
| | Mask Pause | 0 | Excitation Mode | Selective |
| | Preserve | 0 | FMRI | |
| | DIFFUSION | | PSD Trigger | Internal |
| Recon All Images | On | View Order | Bottom/Up | |
| Multi b-values | 1000.0; | # of Repetitions REST | 0 | |
| Multi NEX Values | 1.0; | # of Repetitions ACTIVE | 0 | |
| # Synthetic b-values | 1 | SAT | | |
| Synthetic b-value | 1000.0; | Tag Type | None | |
| CONTRAST | | TRICKS | | |
| Contrast Yes/No | No | Pause On/Off | On | |
| | | Auto Subtract | 0 | |
| | | Auto SCIC | 2 | |
| | | OTHERS | | |
| | | Protocol Notes | Please do not oblique. Please do not reduce the number of slices. Please do not adjust protocol values. | |

Accelerated Sagittal MPRAGE (MSV22)

| | | | | |
|----------------------------|--------------------------|----------------------------|---|-------------------------|
| HS Sagittal MPRAGE (MSV22) | PATIENT POSITION | | IMAGING PARAMETERS | |
| | Patient Entry | Head First | Imaging Mode | 3D |
| | Patient Position | Supine | Pulse Sequence | MP-RAGE |
| | Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | EDR, Fast, ARC, HS, IrP |
| | Plane | SAGITTAL | Phase | 3.00 |
| | Series Description | HS Sagittal MPRAGE (MSV22) | Slice | 1.00 |
| | | | HyperSense | 1.60 |
| | SCAN TIMING | | SCAN RANGE | |
| | Flip Angle | 9 | FOV | 25.6 |
| | Number of Echoes | 1 | Slice Thickness | 1.00 |
| | TI | 900 | Location per Slab | 208 |
| | Receiver Bandwidth | 31.25 | Overlap Locations | 0 |
| | Recovery Time | 800 | Number of Slices | 1 |
| | IMAGE ENHANCE | | ACQ TIMING | |
| | Filter Choice | None | Freq | 256 |
| | USER CVS | | Phase | 256 |
| | User CV6 | 1.00 | Freq DIR | S/I |
| | User CV30 | 1.00 | Fat Shift DIR | Normal (S) |
| | User CV Mask2 | 512 | NEX | 1.00 |
| | MULTI-PHASE | | Phase FOV | 0.94 |
| | Seperate Series | 0 | Auto Shim | On |
| | Trigger Delay without AV | 0 | Phase Correction | No |
| | Mask Phase | 0 | RF Drive Mode | Single |
| | Mask Pause | 0 | Excitation Mode | Selective |
| | Preserve | 0 | FMRI | |
| DIFFUSION | | PSD Trigger | Internal | |
| Recon All Images | On | View Order | Bottom/Up | |
| Multi b-values | 1000.0; | # of Repetitions REST | 0 | |
| Multi NEX Values | 1.0; | # of Repetitions ACTIVE | 0 | |
| # Synthetic b-values | 1 | SAT | | |
| Synthetic b-value | 1000.0; | Tag Type | None | |
| CONTRAST | | TRICKS | | |
| Contrast Yes/No | No | Pause On/Off | On | |
| | | Auto Subtract | 0 | |
| | | Auto SCIC | 2 | |
| | | OTHERS | | |
| | | Protocol Notes | Please do not oblique. Please do not reduce the number of slices. Please do not adjust protocol values. | |

HS Sagittal MPRAGE (MSV22)

| | | | | |
|---------------------------|-------------------------|---------------------------|---|---------------------|
| Sagittal 3D FLAIR (MSV22) | PATIENT POSITION | | IMAGING PARAMETERS | |
| | Patient Entry | Head First | Imaging Mode | 3D |
| | Patient Position | Supine | Pulse Sequence | Cube T2 FLAIR |
| | Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | EDR, Fast, ARC, IrP |
| | Plane | SAGITTAL | Phase | 2.00 |
| | Series Description | Sagittal 3D FLAIR (MSV22) | Slice | 2.00 |
| | SCAN TIMING | | SCAN RANGE | |
| | TE | 104.0 | FOV | 25.6 |
| | Number of Echoes | 1 | Slice Thickness | 1.00 |
| | TR | 5000.0 | Location per Slab | 208 |
| | TI | 1516 | Overlap Locations | 0 |
| | Echo Train Length | 182 | Number of Slices | 1 |
| | Receiver Bandwidth | 31.25 | ACQ TIMING | |
| | IMAGE ENHANCE | | Freq | 256 |
| | Filter Choice | None | Phase | 256 |
| | USER CVS | | Freq DIR | S/I |
| | User CV5 | 1.00 | Fat Shift DIR | Normal (S) |
| | User CV30 | 1.00 | NEX | 1.00 |
| | User CV32 | 1.00 | Phase FOV | 1.00 |
| | User CV34 | 100.00 | Auto Shim | Auto |
| | User CV Mask2 | 522 | Phase Correction | No |
| | MULTI-PHASE | | RF Drive Mode | Single |
| | Seperate Series | 0 | Excitation Mode | Non-Selective |
| | Mask Phase | 0 | FMRI | |
| | Mask Pause | 0 | PSD Trigger | Internal |
| Preserve | 0 | View Order | Bottom/Up | |
| DIFFUSION | | # of Repetitions REST | 0 | |
| Recon All Images | On | # of Repetitions ACTIVE | 0 | |
| Multi b-values | 1000.0; | SAT | | |
| Multi NEX Values | 1.0; | Tag Type | None | |
| # Synthetic b-values | 1 | Fat/Water Saturation | Fat | |
| Synthetic b-value | 1000.0; | TRICKS | | |
| CONTRAST | | Pause On/Off | On | |
| Contrast Yes/No | No | Auto Subtract | 0 | |
| | | Auto SCIC | 2 | |
| | | OTHERS | | |
| | | Protocol Notes | Please do not oblique. Please do not reduce the number of slices. Please do not adjust protocol values. | |

Sagittal 3D FLAIR (MSV22)

| PATIENT POSITION | | IMAGING PARAMETERS | |
|----------------------|-----------------------------|-------------------------|--|
| Patient Entry | Head First | Imaging Mode | 3D |
| Patient Position | Supine | Pulse Sequence | Cube |
| Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | EDR, Fast, FR, ARC |
| Plane | SAGITTAL | Phase | 2.00 |
| Series Description | Sagittal 3D T2 Cube (MSV21) | Slice | 2.00 |
| SCAN TIMING | | SCAN RANGE | |
| TE | Maximum | FOV | 25.6 |
| Number of Echoes | 1 | Slice Thickness | 1.00 |
| TR | 2500.0 | Location per Slab | 208 |
| Echo Train Length | 100 | Overlap Locations | 0 |
| Receiver Bandwidth | 62.50 | Number of Slices | 1 |
| IMAGE ENHANCE | | ACQ TIMING | |
| Filter Choice | None | Freq | 256 |
| | | Phase | 256 |
| USER CVS | | Freq DIR | S/I |
| User CV29 | 1.00 | Fat Shift DIR | Normal (S) |
| User CV30 | 1.00 | NEX | 1.00 |
| User CV34 | 100.00 | Phase FOV | 1.00 |
| User CV Mask2 | 10 | Auto Shim | Auto |
| MULTI-PHASE | | Phase Correction | No |
| Seperate Series | 0 | RF Drive Mode | Single |
| Mask Phase | 0 | Excitation Mode | Non-Selective |
| Mask Pause | 0 | FMRI | |
| Preserve | 0 | PSD Trigger | Internal |
| DIFFUSION | | View Order | Bottom/Up |
| Recon All Images | On | # of Repetitions REST | 0 |
| Multi b-values | 1000.0; | # of Repetitions ACTIVE | 0 |
| Multi NEX Values | 1.0; | SAT | |
| # Synthetic b-values | 1 | Tag Type | None |
| Synthetic b-value | 1000.0; | TRICKS | |
| CONTRAST | | Pause On/Off | On |
| Contrast Yes/No | No | Auto Subtract | 0 |
| | | Auto SCIC | Off |
| | | OTHERS | |
| | | Protocol Notes | Imaging Tip: Copy coverage perscription from the T1. |

Sagittal 3D T2 Cube (MSV21)

Sagittal 3D T2 Cube (MSV21)

Protocol: adult_other_ADNI4 Advanced GE29.1_MR750_32Nova_20220901

| PATIENT POSITION | | IMAGING PARAMETERS | |
|-------------------------|---|------------------------|---------------|
| Patient Entry | Head First | Imaging Mode | 2D |
| Patient Position | Supine | Pulse Sequence | Gradient Echo |
| Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | FC, EDR |
| Plane | AXIAL | SCAN RANGE | |
| Series Description | Axial T2 Star (MSV21) | FOV | 22.0 |
| SCAN TIMING | | Slice Thickness | 4.00 |
| Flip Angle | 20 | Slice Spacing | 0.0 |
| TE | 20.0 | Overlap Locations | 0 |
| Number of Echoes | 1 | Number of Slices | 50 |
| TR | 650.0 | ACQ TIMING | |
| Receiver Bandwidth | 25.00 | Freq | 256 |
| IMAGE ENHANCE | | Phase | 192 |
| Filter Choice | None | Freq DIR | A/P |
| GATING/TRIGGER | | NEX | 1.00 |
| Pause After Navigator | 0 | # of Acq. Before Pause | 0 |
| Prescan | | Phase FOV | 1.00 |
| FMRI | | Auto Shim | Auto |
| PSD Trigger | Internal | Phase Correction | No |
| View Order | Bottom/Up | RF Drive Mode | Single |
| # of Repetitions REST | 0 | Excitation Mode | Selective |
| # of Repetitions ACTIVE | 0 | USER CVS | |
| SAT | | User CV Mask2 | 0 |
| Tag Type | None | MULTI-PHASE | |
| TRICKS | | Seperate Series | 0 |
| Pause On/Off | On | Mask Phase | 0 |
| Auto Subtract | 0 | Mask Pause | 0 |
| Auto SCIC | 2 | Preserve | 0 |
| OTHERS | | DIFFUSION | |
| Protocol Notes | Please do not oblique. Please do not reduce the number of slices. Please do not adjust protocol values. | Recon All Images | On |
| | | Multi b-values | 1000.0; |
| | | Multi NEX Values | 1.0; |
| | | # Synthetic b-values | 1 |
| | | Synthetic b-value | 1000.0; |
| | | CONTRAST | |
| | | Contrast Yes/No | No |

Axial T2 Star (MSV21)

Axial T2 Star (MSV21)

| | | | | |
|---|---|---|------------------------------------|-------------------|
| Axial 3D pCASL 1025 (Eyes Open) (MSV22) | PATIENT POSITION | | IMAGING PARAMETERS | |
| | Patient Entry | Head First | Imaging Mode | 3D |
| | Patient Position | Supine | Pulse Sequence | 3DASL |
| | Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | EDR, Fast, Spiral |
| | Plane | AXIAL | SCAN RANGE | |
| | Series Description | Axial 3D pCASL 1025 (Eyes Open) (MSV22) | FOV | 24.0 |
| | SCAN TIMING | | Slice Thickness | 4.00 |
| | Number of Echoes | 1 | Overlap Locations | 0 |
| | Receiver Bandwidth | 62.50 | Number of Slices | 1 |
| | Post Label Delay | 1025.0 | ACQ TIMING | |
| | IMAGE ENHANCE | | Freq | 768 |
| | Filter Choice | None | Phase | 6 |
| | GATING/TRIGGER | | Freq DIR | A/P |
| | Pause After Navigator Prescan | 0 | NEX | 1.00 |
| | FMRI | | Auto Shim | Auto |
| | PSD Trigger | Internal | Phase Correction | No |
| | View Order | Bottom/Up | RF Drive Mode | Single |
| | # of Repetitions REST | 0 | Excitation Mode | Selective |
| | # of Repetitions ACTIVE | 0 | USER CVS | |
| | SAT | | User CV Mask2 | 0 |
| | Tag Type | None | MULTI-PHASE | |
| | TRICKS | | Seperate Series | 0 |
| | Pause On/Off | On | Delay after Acquisition without AV | 0 |
| | Auto Subtract | 0 | Mask Phase | 0 |
| | Auto SCIC | Off | Mask Pause | 0 |
| OTHERS | | Preserve | 0 | |
| Protocol Notes | Tips: -When prescribing the 3D slab, the bottom of the slab should be positioned at the bottom of the cerebellum | | | |
| | | DIFFUSION | | |
| | | Recon All Images | On | |
| | | Multi b-values | 1000.0; | |
| | | Multi NEX Values | 1.0; | |
| | | # Synthetic b-values | 1 | |
| | | Synthetic b-value | 1000.0; | |
| | | CONTRAST | | |
| | | Contrast Yes/No | No | |

Axial 3D pCASL 1025 (Eyes Open) (MSV22)

| | | | | |
|---|---|---|------------------------------------|-------------------|
| Axial 3D pCASL 1525 (Eyes Open) (MSV22) | PATIENT POSITION | | IMAGING PARAMETERS | |
| | Patient Entry | Head First | Imaging Mode | 3D |
| | Patient Position | Supine | Pulse Sequence | 3DASL |
| | Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | EDR, Fast, Spiral |
| | Plane | AXIAL | SCAN RANGE | |
| | Series Description | Axial 3D pCASL 1525 (Eyes Open) (MSV22) | FOV | 24.0 |
| | SCAN TIMING | | Slice Thickness | 4.00 |
| | Number of Echoes | 1 | Overlap Locations | 0 |
| | Receiver Bandwidth | 62.50 | Number of Slices | 1 |
| | Post Label Delay | 1525.0 | ACQ TIMING | |
| | IMAGE ENHANCE | | Freq | 768 |
| | Filter Choice | None | Phase | 6 |
| | GATING/TRIGGER | | Freq DIR | A/P |
| | Pause After Navigator Prescan | 0 | NEX | 1.00 |
| | FMRI | | Auto Shim | Auto |
| | PSD Trigger | Internal | Phase Correction | No |
| | View Order | Bottom/Up | RF Drive Mode | Single |
| | # of Repetitions REST | 0 | Excitation Mode | Selective |
| | # of Repetitions ACTIVE | 0 | USER CVS | |
| | SAT | | User CV Mask2 | 0 |
| | Tag Type | None | MULTI-PHASE | |
| | TRICKS | | Seperate Series | 0 |
| | Pause On/Off | On | Delay after Acquisition without AV | 0 |
| | Auto Subtract | 0 | Mask Phase | 0 |
| | Auto SCIC | Off | Mask Pause | 0 |
| OTHERS | | Preserve | 0 | |
| Protocol Notes | Tips: -When prescribing the 3D slab, the bottom of the slab should be positioned at the bottom of the cerebellum | | | |
| | | DIFFUSION | | |
| | | Recon All Images | On | |
| | | # Synthetic b-values | 1 | |
| | | Synthetic b-value | 1000.0; | |
| | | CONTRAST | | |
| | | Contrast Yes/No | No | |

Axial 3D pCASL 1525 (Eyes Open) (MSV22)

| | | | | |
|---|---|---|------------------------------------|-------------------|
| Axial 3D pCASL 2025 (Eyes Open) (MSV22) | PATIENT POSITION | | IMAGING PARAMETERS | |
| | Patient Entry | Head First | Imaging Mode | 3D |
| | Patient Position | Supine | Pulse Sequence | 3DASL |
| | Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | EDR, Fast, Spiral |
| | Plane | AXIAL | SCAN RANGE | |
| | Series Description | Axial 3D pCASL 2025 (Eyes Open) (MSV22) | FOV | 24.0 |
| | SCAN TIMING | | Slice Thickness | 4.00 |
| | Number of Echoes | 1 | Overlap Locations | 0 |
| | Receiver Bandwidth | 62.50 | Number of Slices | 1 |
| | Post Label Delay | 2025.0 | ACQ TIMING | |
| | IMAGE ENHANCE | | Freq | 768 |
| | Filter Choice | None | Phase | 6 |
| | GATING/TRIGGER | | Freq DIR | A/P |
| | Pause After Navigator Prescan | 0 | NEX | 1.00 |
| | FMRI | | Auto Shim | Auto |
| | PSD Trigger | Internal | Phase Correction | No |
| | View Order | Bottom/Up | RF Drive Mode | Single |
| | # of Repetitions REST | 0 | Excitation Mode | Selective |
| | # of Repetitions ACTIVE | 0 | USER CVS | |
| | SAT | | User CV Mask2 | 0 |
| | Tag Type | None | MULTI-PHASE | |
| | TRICKS | | Seperate Series | 0 |
| | Pause On/Off | On | Delay after Acquisition without AV | 0 |
| | Auto Subtract | 0 | Mask Phase | 0 |
| | Auto SCIC | Off | Mask Pause | 0 |
| OTHERS | | Preserve | 0 | |
| Protocol Notes | Tips: -When prescribing the 3D slab, the bottom of the slab should be positioned at the bottom of the cerebellum | | | |
| | | DIFFUSION | | |
| | | Recon All Images | On | |
| | | # Synthetic b-values | 1 | |
| | | Synthetic b-value | 1000.0; | |
| | | CONTRAST | | |
| | | Contrast Yes/No | No | |

Axial 3D pCASL 2025 (Eyes Open) (MSV22)

| | | | | |
|---|--|---|------------------------------------|-------------------|
| Axial 3D pCASL 2525 (Eyes Open) (MSV22) | PATIENT POSITION | | IMAGING PARAMETERS | |
| | Patient Entry | Head First | Imaging Mode | 3D |
| | Patient Position | Supine | Pulse Sequence | 3DASL |
| | Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | EDR, Fast, Spiral |
| | Plane | AXIAL | SCAN RANGE | |
| | Series Description | Axial 3D pCASL 2525 (Eyes Open) (MSV22) | FOV | 24.0 |
| | SCAN TIMING | | Slice Thickness | 4.00 |
| | Number of Echoes | 1 | Overlap Locations | 0 |
| | Receiver Bandwidth | 62.50 | Number of Slices | 1 |
| | Post Label Delay | 2525.0 | ACQ TIMING | |
| | IMAGE ENHANCE | | Freq | 768 |
| | Filter Choice | None | Phase | 6 |
| | GATING/TRIGGER | | Freq DIR | A/P |
| | Pause After Navigator Prescan | 0 | NEX | 1.00 |
| | FMRI | | Auto Shim | Auto |
| | PSD Trigger | Internal | Phase Correction | No |
| | View Order | Bottom/Up | RF Drive Mode | Single |
| | # of Repetitions REST | 0 | Excitation Mode | Selective |
| | # of Repetitions ACTIVE | 0 | USER CVS | |
| | SAT | | User CV Mask2 | 0 |
| | Tag Type | None | MULTI-PHASE | |
| | TRICKS | | Seperate Series | 0 |
| | Pause On/Off | On | Delay after Acquisition without AV | 0 |
| | Auto Subtract | 0 | Mask Phase | 0 |
| | Auto SCIC | Off | Mask Pause | 0 |
| OTHERS | | Preserve | 0 | |
| Protocol Notes | <i>Tips: -When prescribing the 3D slab, the bottom of the slab should be positioned at the bottom of the cerebellum</i> | | | |
| | | DIFFUSION | | |
| | | Recon All Images | On | |
| | | # Synthetic b-values | 1 | |
| | | Synthetic b-value | 1000.0; | |
| | | CONTRAST | | |
| | | Contrast Yes/No | No | |

Axial 3D pCASL 2525 (Eyes Open) (MSV22)

| | | | | |
|---|---|---|------------------------------------|-------------------|
| Axial 3D pCASL 3025 (Eyes Open) (MSV22) | PATIENT POSITION | | IMAGING PARAMETERS | |
| | Patient Entry | Head First | Imaging Mode | 3D |
| | Patient Position | Supine | Pulse Sequence | 3DASL |
| | Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | EDR, Fast, Spiral |
| | Plane | AXIAL | SCAN RANGE | |
| | Series Description | Axial 3D pCASL 3025 (Eyes Open) (MSV22) | FOV | 24.0 |
| | SCAN TIMING | | Slice Thickness | 4.00 |
| | Number of Echoes | 1 | Overlap Locations | 0 |
| | Receiver Bandwidth | 62.50 | Number of Slices | 1 |
| | Post Label Delay | 3025.0 | ACQ TIMING | |
| | IMAGE ENHANCE | | Freq | 768 |
| | Filter Choice | None | Phase | 6 |
| | GATING/TRIGGER | | Freq DIR | A/P |
| | Pause After Navigator Prescan | 0 | NEX | 1.00 |
| | FMRI | | Auto Shim | Auto |
| | PSD Trigger | Internal | Phase Correction | No |
| | View Order | Bottom/Up | RF Drive Mode | Single |
| | # of Repetitions REST | 0 | Excitation Mode | Selective |
| | # of Repetitions ACTIVE | 0 | USER CVS | |
| | SAT | | User CV Mask2 | 0 |
| | Tag Type | None | MULTI-PHASE | |
| | TRICKS | | Seperate Series | 0 |
| | Pause On/Off | On | Delay after Acquisition without AV | 0 |
| | Auto Subtract | 0 | Mask Phase | 0 |
| | Auto SCIC | Off | Mask Pause | 0 |
| OTHERS | | Preserve | 0 | |
| Protocol Notes | Tips: -When prescribing the 3D slab, the bottom of the slab should be positioned at the bottom of the cerebellum | | | |
| | | DIFFUSION | | |
| | | Recon All Images | On | |
| | | # Synthetic b-values | 1 | |
| | | Synthetic b-value | 1000.0; | |
| | | CONTRAST | | |
| | | Contrast Yes/No | No | |

Axial 3D pCASL 3025 (Eyes Open) (MSV22)

| | | | | |
|------------------------------------|-------------------------|--------------------------|--|------------------------------|
| Axial HB dMRI (MS21) | PATIENT POSITION | | IMAGING PARAMETERS | |
| | Patient Entry | Head First | Imaging Mode | 2D |
| | Patient Position | Supine | Pulse Sequence | Spin Echo |
| | Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | EDR, Cla, EPI, DIFF, ARC, HB |
| | Plane | AXIAL | Phase | 2.00 |
| | Series Description | Axial HB dMRI (MS21) | HyperBand Slice | 3 |
| | SCAN TIMING | | SCAN RANGE | |
| | TE | Minimum | FOV | 23.2 |
| | Number of Echoes | 1 | Slice Thickness | 2.00 |
| | TR | 3703.0 | Slice Spacing | 0.0 |
| | Number of Shots | 1 | Overlap Locations | 0 |
| | IMAGE ENHANCE | | Number of Slices | 81 |
| | Filter Choice | None | ACQ TIMING | |
| | USER CVS | | Freq | 116 |
| | User CV5 | 1.00 | Phase | 116 |
| | User CV11 | 1127.00 | Freq DIR | R/L |
| | TR Min | 2000.0 | Phase FOV | 1.00 |
| | TR Max | 17000.0 | Auto Shim | Auto |
| | User CV Mask2 | 512 | Phase Correction | Yes |
| | MULTI-PHASE | | RF Drive Mode | Single |
| | Seperate Series | 0 | Excitation Mode | Selective |
| | Mask Phase | 0 | FMRI | |
| | Mask Pause | 0 | PSD Trigger | Internal |
| | Preserve | 0 | View Order | Bottom/Up |
| | DIFFUSION | | # of Repetitions REST | 0 |
| Optimized TE | No | # of Repetitions ACTIVE | 0 | |
| Diffusion Directions | Tensor | SAT | | |
| Number of Diffusion Directions | 126 | Tag Type | None | |
| Number of T2 Images | 1 | Fat/Water Saturation | Fat | |
| Dual Spin Echo | Off | TRICKS | | |
| Diffusion Tensor Processing Output | No Selection | Pause On/Off | On | |
| Recon All Images | Off | Auto Subtract | 0 | |
| Multi b-values | 2000.0; | Auto SCIC | 2 | |
| Multi NEX Values | 1.0; | OTHERS | | |
| Real Time Field Adjustment | 1 | Protocol Notes | VERY IMPORTANT: Set Acceleration->Hyperband Slice to 3! (It is saved as 3 in the protocol, but a bug resets it to 2.) Reset Slices to 81. Auto TR -> Auto and recalculate. It should go to about 3306. Make sure both the anterior and posterior receiver channels are on with the 48 channel coil, and that Freq. Dir is R/L. Please do not oblique. Please do not reduce the number of slices. Please do not adjust protocol values. | |
| CONTRAST | | | | |
| Contrast Yes/No | No | | | |

Axial HB dMRI (MS21)

| | | | | |
|-------------------------------------|--|-------------------------------------|---------------------------|------------------------|
| Axial HB rsfMRI (Eyes Open) (MSV22) | PATIENT POSITION | | IMAGING PARAMETERS | |
| | Patient Entry | Head First | Imaging Mode | 2D |
| | Patient Position | Supine | Pulse Sequence | Gradient Echo |
| | Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | EDR, MPh, EPI, ARC, HB |
| | Plane | AXIAL | Phase | 1.00 |
| | Series Description | Axial HB rsfMRI (Eyes Open) (MSV22) | HyperBand Slice | 2 |
| | SCAN TIMING | | SCAN RANGE | |
| | Flip Angle | 90 | FOV | 22.0 |
| | TE | 30.0 | Slice Thickness | 3.40 |
| | Number of Echoes | 1 | Slice Spacing | 0.0 |
| | TR | 1500.0 | Overlap Locations | 0 |
| | Number of Shots | 1 | Number of Slices | 48 |
| | IMAGE ENHANCE | | ACQ TIMING | |
| | Filter Choice | None | Freq | 64 |
| | GATING/TRIGGER | | Phase | 64 |
| | Pause After Navigator Prescan | 0 | Freq DIR | R/L |
| | FMRI | | NEX | 1.00 |
| | Initial State | Control | Phase FOV | 1.00 |
| | PSD Trigger | Internal | Auto Shim | Auto |
| | View Order | Bottom/Up | Phase Correction | Yes |
| | # of Repetitions REST | 0 | RF Drive Mode | Single |
| | # of Repetitions ACTIVE | 0 | Excitation Mode | Selective |
| | SAT | | USER CVS | |
| | Tag Type | None | User CV0 | 1.00 |
| | Fat/Water Saturation | Fat | User CV Mask2 | 0 |
| TRICKS | | MULTI-PHASE | | |
| Pause On/Off | On | Slice per Location | 200 | |
| Auto Subtract | 0 | Phase Acquisition Order | Interleaved | |
| Auto SCIC | Off | Delay after Acquisition | Minimum | |
| OTHERS | | Seperate Series | 0 | |
| Protocol Notes | *Instruct patient to keep eyes open during this scan and to focus on 1 spot. Cover brain in one acq, ensure slab is positioned from inferior to superior. Must have 48 slices, please do not subtract or add any slices. Do not oblique slices. (Do not change series description) | | | |
| | | Delay after Acquisition without AV | 2 | |
| | | Mask Phase | 0 | |
| | | Mask Pause | 0 | |
| | | DIFFUSION | | |
| | | Recon All Images | On | |
| | | # Synthetic b-values | 1 | |
| | | Synthetic b-value | 1000.0; | |
| | | CONTRAST | | |
| | | Contrast Yes/No | No | |

Axial HB rsfMRI (Eyes Open) (MSV22)

Protocol: adult_other_ADNI4 Advanced GE29.1_MR750_32Nova_20220901

| PATIENT POSITION | | IMAGING PARAMETERS | |
|----------------------|----------------------------|-------------------------|---|
| Patient Entry | Head First | Imaging Mode | 2D |
| Patient Position | Supine | Pulse Sequence | FSE-XL |
| Coil Configuration | Nova 32ch Brain for 750w | Imaging Options | Fast, Asset |
| Plane | OBLIQUE | Phase | 2.00 |
| Series Description | HighResHippocampus (MSV21) | SCAN RANGE | |
| SCAN TIMING | | FOV | 17.5 |
| Flip Angle | 122 | Slice Thickness | 2.00 |
| TE | 50.0 | Slice Spacing | Intleave |
| Number of Echoes | 1 | Overlap Locations | 0 |
| TR | 8020.0 | Number of Slices | 30 |
| Echo Train Length | 15 | ACQ TIMING | |
| Receiver Bandwidth | 20.83 | Freq | 448 |
| IMAGE ENHANCE | | Phase | 448 |
| Filter Choice | None | Freq DIR | S/I |
| USER CVS | | Fat Shift DIR | Normal (I) |
| User CV29 | 1.00 | NEX | 1.00 |
| User CV30 | 1.00 | Phase FOV | 1.00 |
| User CV Mask2 | 640 | Auto Shim | Auto |
| MULTI-PHASE | | Phase Correction | Yes |
| Seperate Series | 0 | RF Drive Mode | Single |
| Mask Phase | 0 | Excitation Mode | Selective |
| Mask Pause | 0 | FMRI | |
| Preserve | 0 | PSD Trigger | Internal |
| DIFFUSION | | View Order | Bottom/Up |
| Recon All Images | On | # of Repetitions REST | 0 |
| # Synthetic b-values | 1 | # of Repetitions ACTIVE | 0 |
| Synthetic b-value | 1000.0; | SAT | |
| CONTRAST | | Tag Type | None |
| Contrast Yes/No | No | TRICKS | |
| | | Pause On/Off | On |
| | | Auto Subtract | 0 |
| | | Auto SCIC | 2 |
| | | OTHERS | |
| | | Protocol Notes | Angle the slices perpendicular to the hippocampul body. Please refer to the study manual for further details. |

HighResHippocampus (MSV21)

HighResHippocampus (MSV21)