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\\USER

Development

Dr. Cohen-Adad

acdc_7t_spine_073_fMRI

t1_mp2rage_cor_nonSelHS1_0.7iso
tfl_sag_2p5mmISO_largeFOV_RefVol_OptC4C5
ep2d_lgFOVc45_0p85_R2PF6_TE30_BW1132
dzne_ep3d_fmri_20sli_PCshot_TE11p2
dzne_ep3d_fmri_EPI16
dzne_ep3d_fmri_EPI10
gre_B0_sag
gre_B0_tra

\\USER\Development\Dr. Cohen-Adad\acdc 7t spine 073 fMRI\t1 mp2rage cor nonSelHS1 0.7iso

TA: 8:47 PM: FIX Voxel size: 0.7×0.7×0.7 mmPAT: 2 Rel. SNR: 1.00 : tfl

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Dist. factor	50 %
Position	R4.6 A27.7 H0.9 mm
Orientation	C > T-12.5
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	192
FoV read	260 mm
FoV phase	65.8 %
Slice thickness	0.70 mm
TR	5000.0 ms
TE	2.15 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(3D)
Coil elements	1H;1H;1H;1H;1H;1H;1H;

Contrast - Common

TR	5000.0 ms
TE	2.15 ms
Magn. preparation	Non-sel. IR
TI 1	700 ms
TI 2	2400 ms
Flip angle 1	4.0 deg
Flip angle 2	5.0 deg
Fat suppr.	None
Water suppr.	None

Contrast - Dynamic

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

Resolution - Common

FoV read	260 mm
FoV phase	65.8 %
Slice thickness	0.70 mm
Base resolution	368
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	6/8

Resolution - Common

Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	28
Accel. factor 3D	1
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Dist. factor	50 %
Position	R4.6 A27.7 H0.9 mm
Orientation	C > T-12.5
Phase enc. dir.	R >> L
Slice oversampling	0.0 %
Slices per slab	192
FoV read	260 mm
FoV phase	65.8 %
Slice thickness	0.70 mm
TR	5000.0 ms
Multi-slice mode	Single shot
Series	Ascending
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	R4.6 A27.7 H0.9 mm
Orientation	C > T-12.5
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	R4.6 A27.7 H0.9
R	4.6 mm
A	27.7 mm
H	0.9 mm
Initial Rotation	0.00 deg
Initial Orientation	C > T
C > T	-12.5
> S	0.0

Geometry - Navigator

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
Table position	H

Geometry - Tim Planning Suite

Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	R4.6 A15.8 F2.8 mm
! Orientation	T > C11.5 > S0.1
! Rotation	0.00 deg
! A >> P	43 mm
! R >> L	33 mm
! F >> H	246 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Non-sel.

System - Tx/Rx

Frequency 1H	297.200694 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	433.500 V

Physio - Signal1

1st Signal/Mode	None
TR	5000.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	Non-sel. IR
TI 1	700 ms
TI 2	2400 ms
Fat suppr.	None
Dark blood	Off
FoV read	260 mm
FoV phase	65.8 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
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Physio - PACE

Concatenations	1
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Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

Inline - MIP

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

Inline - Composing

Inline Composing	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	Off

Inline - MapIt

Save original images	On
MapIt	None
Flip angle 1	4.0 deg
Flip angle 2	5.0 deg
Measurements	1
TR	5000.0 ms
TE	2.15 ms

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	6.4 ms
Bandwidth	220 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Normal*
Excitation	Non-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	192

Sequence - Special

Use Custom Inversion	On
Inv pulse type	HS1
HS pulse dur	10240 us
HS pulse offset	0 Hz
HS flip angle	360 deg
TR_FOCI B1	0.00 uT
Echo Spacing	6400 us
Denoise Weighting	100

Sequence - Assistant

Mode	Off
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\\USER\Development\Dr. Cohen-Adad\acdc_7t_spine_073_fMRI\tfl_sag_2p5mm\ISO_largeFOV_RefV
ol_OptC4C5

TA: 1:10 PM: FIX Voxel size: 2.4x2.4x2.5 mmPAT: Off Rel. SNR: 1.00 : tfl

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	28
Dist. factor	100 %
Position	L0.0 A46.4 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	28
Dist. factor	100 %
Position	R2.5 A46.4 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	340 mm
FoV phase	61.1 %
Slice thickness	2.5 mm
TR	34420.0 ms
TE	2.31 ms
Averages	1
Concatenations	1
Filter	Distortion Corr.(3D)
Coil elements	1H:1H:1H:1H:1H:1H:1H:

Contrast - Common

TR	34420.0 ms
TE	2.31 ms
Magn. preparation	None
Flip angle	10 deg
Fat suppr.	None
Water suppr.	None

Contrast - Dynamic

Averages	1
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	340 mm
FoV phase	61.1 %
Slice thickness	2.5 mm
Base resolution	144
Phase resolution	100 %
Phase partial Fourier	Off

Resolution - Common

Interpolation	Off
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Resolution - iPAT

PAT mode	None
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Resolution - Filter Image

Image Filter	Off
Distortion Corr.	On
Mode	3D
Unfiltered images	On
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	28
Dist. factor	100 %
Position	L0.0 A46.4 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	28
Dist. factor	100 %
Position	R2.5 A46.4 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	340 mm
FoV phase	61.1 %
Slice thickness	2.5 mm
TR	34420.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice group	1
Position	L0.0 A46.4 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	R2.5 A46.4 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L0.0 A46.4 H0.0
L	0.0 mm
A	46.4 mm
H	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Tim Planning Suite

Set-n-Go Protocol	Off
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Geometry - Tim Planning Suite

Table position	H
Table position	0 mm
Inline Composing	Off

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	R1.3 A46.4 H0.0 mm
Orientation	Sagittal
Rotation	0.00 deg
A >> P	208 mm
F >> H	340 mm
R >> L	140 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slice-sel.

System - Tx/Rx

Frequency 1H	297.200694 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	432.000 V

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

Inline - MIP

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

Inline - Composing

Inline Composing	Off
Distortion Corr.	On

Inline - Composing

Mode	3D
Unfiltered images	On

Sequence - Part 1

Introduction	Off
Dimension	2D
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Interleaved
Echo spacing	5.1 ms
Bandwidth	400 Hz/Px

Sequence - Part 2

RF pulse type	Low SAR
Gradient mode	Normal
Excitation	Slice-sel.
RF spoiling	On
Turbo factor	88

Sequence - Assistant

Mode	Off
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\\USER\Development\Dr. Cohen-Adad\acdc_7t_spine_073_fMRI\ep2d_lgFOVc45_0p85_R2PF6_TE30_BW1132

TA: 10:10 PM: FIX Voxel size: 0.9×0.9×3.0 mmPAT: 2 Rel. SNR: 1.00 : epfid

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	16
Dist. factor	0 %
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	164 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	1290 ms
TE	30.00 ms
Multi-band accel. factor	1
Filter	Raw filter
Coil elements	1H;1H;1H;1H;1H;1H;1H;1H

Contrast - Common

TR	1290 ms
TE	30.00 ms
MTC	Off
Magn. preparation	None
Flip angle	68 deg
Fat suppr.	None

Contrast - Dynamic

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	466
Delay in TR	0 ms
Multiple series	Off

Resolution - Common

FoV read	164 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	52

Resolution - iPAT

Reference scan mode	GRE
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Resolution - Filter Image

Distortion Corr.	Off
Prescan Normalize	Off

Resolution - Filter Rawdata

Raw filter	On
Elliptical filter	Off
Hamming	Off

Geometry - Common

Slice group	1
Slices	16
Dist. factor	0 %
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
FoV read	164 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	1290 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-band accel. factor	1

Geometry - AutoAlign

Slice group	1
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R6.3 A29.9 H43.9
R	6.3 mm
A	29.9 mm
H	43.9 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	5.6
> S	0.0

Geometry - Saturation

Fat suppr.	None
Special sat.	None

Geometry - Tim Planning Suite

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

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P

System - Miscellaneous

Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	R6.3 A29.9 H43.9 mm
! Orientation	T > C5.6
! Rotation	0.00 deg
! A >> P	40 mm
! R >> L	52 mm
! F >> H	60 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Standard

System - Tx/Rx

Frequency 1H	297.200694 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	432.000 V

Physio - Signal1

1st Signal/Mode	None
TR	1290 ms
Multi-band accel. factor	1

BOLD

GLM Statistics	Off
Dynamic t-maps	Off
Ignore meas. at start	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
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active

BOLD

Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off
Measurements	466
Delay in TR	0 ms
Multiple series	Off

Sequence - Part 1

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	1 ms
Bandwidth	1132 Hz/Px

Sequence - Part 2

EPI factor	192
Gradient mode	Fast
Excitation	Standard
RF spoiling	Off

Sequence - Special

Excite pulse duration	3840 us
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
PF omits higher k-space	Off
Disable freq. update	Off
Force equal slice timing	Off
FFT scale factor	1.00
GRE iPAT ref. FA	12.0 deg
Physio recording	Legacy
Triggering scheme	Standard

\\USER\Development\Dr. Cohen-Adad\acdc_7t_spine_073_fMRI\dzne_ep3d_fmri_20sli_PCshot_TE1
1p2

TA: 10:14 PM: FIX Voxel size: 0.9×0.9×3.0 mmPAT: 2 Rel. SNR: 1.00 : ep 7fc60e8

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
AutoAlign	---
Slab Scale	-10 %
Slices per slab	20
FoV read	164 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	4000 ms
TE 1	11.20 ms
Averages	1
Multi-echo Shots	1
Filter	Raw filter
Coil elements	1H;1H;1H;1H;1H;1H;1H;1H;

Contrast - Common

TR	4000 ms
TE 1	11.20 ms
Multi-echo spacing	11.32 ms
MTC	Off
Magn. preparation	None
TI	900 ms
Flip angle	10 deg
Fat suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	152
Pause after meas.	0.0 s

Resolution - Common

FoV read	164 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
Base resolution	192
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Acc. factor PE	2
Ref. lines PE	52
Acc. factor 3D	1
Ref. lines 3D	16
Reference Scan Mode	GRE/separate

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	On
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	20
FoV read	164 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	4000 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R6.3 A29.9 H43.9
R	6.3 mm
A	29.9 mm
H	43.9 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	5.6
> S	0.0

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	None

Geometry - Tim Planning Suite

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

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

Sequence - Special

RF duration	2560 us
RF BWT product	30
Ernst T1	1300 ms
PATRef prep. shots	200
Volume dummy shots	0
Dummy Measurements	0
Integrated PC	On
Invert PE	Off
Water Exc.	-none-
Phase Correction	per Shot
EPI rise time factor	1.10
Mosaic DICOMs	On

System - Adjustments

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

Sequence - Assistant

Mode	Off
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System - Adjust Volume

! Position	R6.3 A29.9 H43.9 mm
! Orientation	T > C5.6
! Rotation	0.00 deg
! A >> P	40 mm
! R >> L	52 mm
! F >> H	60 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.200694 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	1.03 ms
Bandwidth	1302 Hz/Px

Sequence - Part 2

EPI factor	10
Segmentation	10
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

Sequence - Special

PATRef FA	5 deg
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\\USER\Development\Dr. Cohen-Adad\acdc 7t spine 073 fMRI\dzne ep3d fmri EPI16

TA: 10:14 PM: FIX Voxel size: 0.9×0.9×3.0 mmPAT: 2 Rel. SNR: 1.00 : ep 7fc60e8

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
AutoAlign	---
Slab Scale	-10 %
Slices per slab	16
FoV read	164 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	2300 ms
TE 1	11.20 ms
Averages	1
Multi-echo Shots	1
Filter	Raw filter
Coil elements	1H;1H;1H;1H;1H;1H;1H;

Contrast - Common

TR	2300 ms
TE 1	11.20 ms
Multi-echo spacing	17.18 ms
MTC	Off
Magn. preparation	None
TI	900 ms
Flip angle	11 deg
Fat suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	264
Pause after meas.	0.0 s

Resolution - Common

FoV read	164 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
Base resolution	192
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Acc. factor PE	2
Ref. lines PE	52
Acc. factor 3D	1
Ref. lines 3D	16
Reference Scan Mode	GRE/separate

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	On
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	16
FoV read	164 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	2300 ms
1H; 1H; 1H; 1H; 1H; 1H; 1H; 1H; 1H; 1H	
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R6.3 A29.9 H43.9
R	6.3 mm
A	29.9 mm
H	43.9 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	5.6
> S	0.0

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	None

Geometry - Tim Planning Suite

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

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

Sequence - Special

RF duration	2560 us
RF BWT product	30
Ernst T1	1300 ms
PATRef prep. shots	200
Volume dummy shots	0
Dummy Measurements	0
Integrated PC	Off
Invert PE	Off
Water Exc.	-none-
Phase Correction	per Blade
EPI rise time factor	1.10
Mosaic DICOMs	On

System - Adjustments

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

Sequence - Assistant

Mode	Off
------	-----

System - Adjust Volume

! Position	R6.3 A29.9 H43.9 mm
! Orientation	T > C5.6
! Rotation	0.00 deg
! A >> P	40 mm
! R >> L	52 mm
! F >> H	60 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.200694 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	1.01 ms
Bandwidth	1240 Hz/Px

Sequence - Part 2

EPI factor	16
Segmentation	6
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

Sequence - Special

PATRef FA	5 deg
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\\USER\Development\Dr. Cohen-Adad\acdc 7t spine 073 fMRI\dzne ep3d fmri EPI10

TA: 10:17 PM: FIX Voxel size: 0.9×0.9×3.0 mmPAT: 2 Rel. SNR: 1.00 : ep 7fc60e8

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
AutoAlign	---
Slab Scale	-10 %
Slices per slab	16
FoV read	164 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	2800 ms
TE 1	8.04 ms
Averages	1
Multi-echo Shots	1
Filter	Raw filter
Coil elements	1H;1H;1H;1H;1H;1H;1H;1H

Contrast - Common

TR	2800 ms
TE 1	8.04 ms
Multi-echo spacing	11.32 ms
MTC	Off
Magn. preparation	None
TI	900 ms
Flip angle	9 deg
Fat suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	218
Pause after meas.	0.0 s

Resolution - Common

FoV read	164 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
Base resolution	192
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Acc. factor PE	2
Ref. lines PE	52
Acc. factor 3D	1
Ref. lines 3D	16
Reference Scan Mode	GRE/separate

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	On
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	16
FoV read	164 mm
FoV phase	100.0 %
Slice thickness	3.00 mm
TR	2800 ms
Multi-slice mode	Interleaved
Series	Ascending
Multi-echo Shots	1

Geometry - AutoAlign

Slab group	1
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R6.3 A29.9 H43.9
R	6.3 mm
A	29.9 mm
H	43.9 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	5.6
> S	0.0

Geometry - Saturation

Saturation mode	Standard
Fat suppr.	None

Geometry - Tim Planning Suite

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

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

Sequence - Special

RF duration	2560 us
RF BWT product	30
Ernst T1	1300 ms
PATRef prep. shots	200
Volume dummy shots	0
Dummy Measurements	0
Integrated PC	Off
Invert PE	Off
Water Exc.	-none-
Phase Correction	per Blade
EPI rise time factor	1.10
Mosaic DICOMs	On

System - Adjustments

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

Sequence - Assistant

Mode	Off
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System - Adjust Volume

! Position	R6.3 A29.9 H43.9 mm
! Orientation	T > C5.6
! Rotation	0.00 deg
! A >> P	40 mm
! R >> L	52 mm
! F >> H	60 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

System - Tx/Rx

Frequency 1H	297.200694 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Off
Contrasts	1
Multi-slice mode	Interleaved
Echo spacing	1.03 ms
Bandwidth	1302 Hz/Px

Sequence - Part 2

EPI factor	10
Segmentation	10
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

Sequence - Special

PATRef FA	5 deg
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\\USER\Development\Dr. Cohen-Adad\acdc_7t_spine_073_fMRI\gre_B0_sag
TA: 0:59 PM: FIX Voxel size: 1.1×1.1×2.0 mmRel. SNR: 1.00 : fm

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	20
Dist. factor	20 %
Position	R4.6 A27.7 H0.9 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	150.0 ms
TE 1	3.06 ms
TE 2	4.08 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	1H;1H;1H;1H;1H;1H;1H;1H

Contrast - Common

TR	150.0 ms
TE 1	3.06 ms
TE 2	4.08 ms
MTC	Off
Flip angle	19 deg
Fat suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution - Common

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
Base resolution	190
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off

Resolution - Filter Image

Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	20
Dist. factor	20 %
Position	R4.6 A27.7 H0.9 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	150.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice group	1
Position	R4.6 A27.7 H0.9 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R4.6 A27.7 H0.9
R	4.6 mm
A	27.7 mm
H	0.9 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Saturation

Fat suppr.	None
Special sat.	None

Geometry - Tim Planning Suite

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

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	R6.3 A29.9 H43.9 mm
! Orientation	T > C5.6
! Rotation	0.00 deg
! A >> P	40 mm
! R >> L	52 mm
! F >> H	60 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
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System - Tx/Rx

Frequency 1H	297.200694 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	432.000 V

Sequence - Part 1

Introduction	On
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Flow comp.	No
Multi-slice mode	Interleaved
Bandwidth	797 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

Sequence - Assistant

Mode	Off
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\\USER\Development\Dr. Cohen-Adad\acdc_7t_spine_073_fMRI\gre_B0_tra

TA: 0:59 PM: FIX Voxel size: 1.1×1.1×3.0 mmRel. SNR: 1.00 : fm

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

[illegible]

Contrast - Common

TR	150.0 ms
TE 1	3.06 ms
TE 2	4.08 ms
MTC	Off
Flip angle	19 deg
Fat suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	1
Multiple series	Off

Resolution - Common

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
Base resolution	190
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off

Resolution - Filter Image

Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	20
Dist. factor	20 %
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	3.0 mm
TR	150.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slice group	1
Position	R6.3 A29.9 H43.9 mm
Orientation	T > C5.6
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R6.3 A29.9 H43.9
R	6.3 mm
A	29.9 mm
H	43.9 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	5.6
> S	0.0

Geometry - Saturation

Fat suppr.	None
Special sat.	None

Geometry - Tim Planning Suite

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

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---

System - Miscellaneous

Coil Select Mode	Default
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System - Adjustments

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	R6.3 A29.9 H43.9 mm
! Orientation	T > C5.6
! Rotation	0.00 deg
! A >> P	40 mm
! R >> L	52 mm
! F >> H	60 mm
Reset	Off

System - pTx Volumes

B1 Shim mode	TrueForm
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System - Tx/Rx

Frequency 1H	297.200694 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	432.000 V

Sequence - Part 1

Introduction	On
Dimension	2D
Asymmetric echo	Off
Contrasts	2
Flow comp.	No
Multi-slice mode	Interleaved
Bandwidth	797 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On

Sequence - Assistant

Mode	Off
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