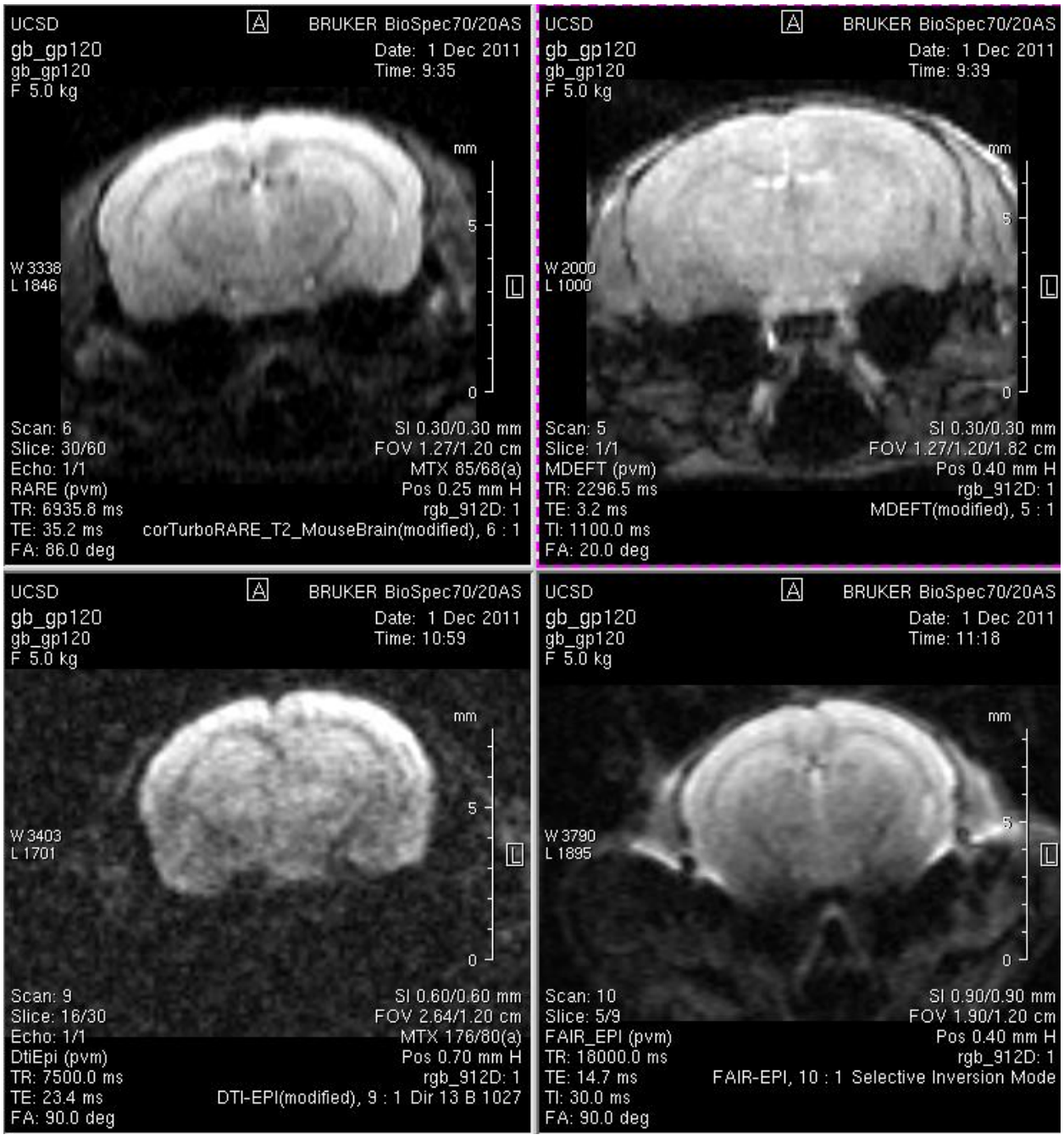
Protocol: Mouse Brain Exploratory

Purpose

To collect exploratory data on brain anatomy, relaxometry and perfusion in mice.



Mouse Brain Exploratory Protocol – "C_MouseBrainExploratory"				
Type	**Protocol Name**	**In-plane resolution, slice thickness**	**Slices**	**Scan time**
Localizer	*1_tripilot*			
T1 weighted anatomical	*2_T1MDEFT150x150x300*	150µm X 150 µm, 300 µm	30	19 min
T2 weighted anatomical	*3_T2RARE_150x150x150*	150µm X 150 µm, 150 µm	60	18 min
Relaxometry	*4_T1T2MapRARE_150x150x300*	150µm X 150 µm, 300 µm (1 slice)	1	7 min
EPI	*5_EPITrajMeas*	150µm X 150 µm, 900 µm	20	This EPI scan should be done before any other EPI scans
FAIR-EPI	*6_FAIR_EPI*	150µm X 150 µm, 900 µm	9	Run *EPITrajMeas* before this scan. Use same in-plane prescription and BW as *EPITrajMeas*
Sensitivity Map	*7_MinConRx*	300µm X 300 µm, 600 µm	20	26 sec

Instructions

The *5_EPITrajMeas* scan should have the same prescription as the *6_FAIR_EPI* scan with the same in plane matrix and resolution and should be run before the *6_FAIR_EPI* scan.

Notes

Coil: Two element mouse brain array.

Post-Processing Support

BC: Correction for surface coil bias (bright near the coil, darker further away) is available for beta testing. This will require the *MinConRx* scan and the anatomical scan to be corrected. If you do not use a surface coil, this correction should not be necessary.

Relaxometry: The scanner supports calculation of T1 and T2 maps from relaxation data like *T1T2MapRARE*. A tutorial is available at the center website.