

Materials List for

# Analysis of Astrocyte Territory Volume and Tiling in Thick Free-Floating Tissue Sections

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jove.com/video/63804

## Materials

Name	Company	Catalog Number	Comments
#5 forceps	Roboz	RS-5045	
1 mL TB Syringe	Becton Dickinson (BD)	309623	
10x TBS (tris-buffered saline)			30 g Tris, 80 g NaCl, 2 g KCl, HCl to pH 7.4, dH <sub>2</sub> O to 1 L; store at room temperature (RT)
12-well plate	Genesee Scientific	25-106MP	
1x TBS			100 mL 10x TBS + 900 mL dH <sub>2</sub> O; store at RT
1x TBS + Heparin			28.2 mg Heparin + 250 mL 1x TBS; store at 4 °C
24-well plate	Genesee Scientific	25-107MP	
30% Sucrose in TBS			15 g sucrose, 1x TBS to 50 mL; store at 4 °C
4% PFA (paraformaldehyde) in TBS			40 g PFA, 4-6 NaOH pellets, 100 mL 10x TBS, dH <sub>2</sub> O to 1 L; store at 4 °C
Avertin			0.3125 g tri-bromoethanol, 0.625 mL methylbutanol, dH <sub>2</sub> O to 25 mL; store at 4 °C; discard 2 weeks after making
Blocking and antibody buffer			10% goat serum in TBST; store at 4 °C
CD1 mice	Charles River	022	
Collection vial for brains	Fisher Scientific	03-337-20	
Confocal acquisition software	Olympus	FV31S-SW	
Confocal microscope	Olympus	FV3000RS	
Coverslips	Fisher Scientific	12544E	
Cryostat	Thermo Scientific	CryoStar NX50	
Cryostat blade	Thermo Scientific	3052835	
DAPI	Invitrogen	D1306	
Embedding mold	Polysciences	18646A-1	
Freezing Medium			2:1 30% sucrose:OCT; store at RT

GFP antibody	Aves Labs	GFP1010	
Glycerol	Thermo Scientific	158920010	
Goat anti-chicken 488	Invitrogen	A-11039	
Goat anti-rabbit 594	Invitrogen	A11037	
Goat Serum	Gibco	16210064	
Heparin	Sigma-Aldrich	H3149	
Hydrochloric acid	Sigma-Aldrich	258148	
Imaris	Bitplane	N/A	Version 9.8.0
MATLAB	MathWorks	N/A	
Metal lunch tin	AQUARIUS	N/A	From Amazon, "DIY Large Fun Box"
Methylbutanol	Sigma-Aldrich	152463	
Micro Dissecting Scissors	Roboz	RS-5921	
Mounting medium			20 mM Tris pH 8.0, 90% Glycerol, 0.5% N-propyl gallate; store at 4 °C; good for up to 2 months
Nail polish	VWR	100491-940	
N-propyl gallate	Sigma-Aldrich	02370-100G	
O.C.T.	Fisher Scientific	23-730-571	
Oil	Olympus	IMMOIL-F30CC	Specific to microscope/objective
Operating Scissors 6"	Roboz	RS-6820	
Orbital platform shaker	Fisher Scientific	88861043	Minimum speed needed: 25 rpm
Paintbrush	Bogrinuo	N/A	From Amazon, "Detail Paint Brushes - Miniature Brushes"
Paraformaldehyde	Sigma-Aldrich	P6148	
Pasteur pipet (5.75")	VWR	14672-608	
Pasteur pipet (9")	VWR	14672-380	
Potassium chloride	Sigma-Aldrich	P9541-500G	
Razor blade	Fisher Scientific	12-640	
RFP antibody	Rockland	600-401-379	
Sectioning medium			1:1 glycerol:1x TBS; store at RT
Slides	VWR	48311-703	
Sodium chloride	Fisher Scientific	BP358-212	
Sodium hydroxide	Sigma-Aldrich	S5881	
Sucrose	Sigma-Aldrich	S0389	
TBST (TBS + Triton X-100)			0.2% Triton in 1x TBS; store at RT
Transfer Pipet	VWR	414004-002	
Tri-bromoethanol	Sigma-Aldrich	T48402	
Tris(hydroxymethyl)aminomethane	Thermo Scientific	424570025	
Triton X-100	Sigma-Aldrich	93443	
Triton X-100 (high-quality)	Fisher Scientific	50-489-120	
XTSpotsConvexHull	N/A	N/A	custom XTension provide as supplementary material