

Materials List for:

Imaging Metals in Brain Tissue by Laser Ablation - Inductively Coupled Plasma - Mass Spectrometry (LA-ICP-MS)

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Materials

Name	Company	Catalog Number	Comments
Soda glass microscope slides	n/a	n/a	Typical slides are suitable for all experiments
PTFE-coated microtome blades	C.L. Stuckey	DT315R50	Blade size depends on cryostat blade holder. Check before ordering.
Parafomaldehyde (PFA)	Sigma-Aldrich	16005	Any supplier suitable
Sucrose	n/a	n/a	Commercial grade white sugar is suitable
Phosphate-buffered Saline (PBS)	Sigma-Aldrich	P5368	Premixed sachets listed, can be prepared according to normal laboratory protocols
Xylene	Sigma-Aldrich	247624	Any supplier suitable
Ethanol	Sigma-Aldrich	E7023	Any supplier suitable
Lamb brain	n/a	n/a	Available from most local butchers
Metal salts	n/a	n/a	Use water soluble metal salts containing desired analytes
Omni TH Tissue Homogeniser	Omni Inc	THP115	Alternative homogenizers are suitable
Polycarbonate homgenizer probes	Omni Inc	TH115-PCRH	
Microwave digestion unit	n/a	n/a	Optional. See Section 2
1.5 mL microfuge tubes	TechnoPlas	P4010	Metal-free polypropylene tubes. Acid washed tubes are also suitable
65% nitric acid	Merk Millipore	100441	Trace analysis grade
30% hydrogen peroxide	Sigma-Aldrich	95321	Trace analysis grade
10 x 10 mm disposable cryomolds	Ted Pella	27181	
Isopentane	Sigma-Aldrich	76871	
Liquid nitrogen	n/a	n/a	Use local supplier
NWR213 Laser Ablation system	ESI Ltd	n/a	Used in these experiments. Other manufacturers suitable, may require modifications to protocol

Agilent 8800 Series ICP-MS	Agilent Technologies	n/a	Used in these experiments. Other manufacturers suitable, may require modifications to protocol
Iolite	Iolite Software	n/a	Available from http://iolite-software.com/ . Other methods are available, see protocol
Excel	Microsoft	n/a	
IGOR Pro	Wave Metrics	n/a	Available from https://www.wavemetrics.com/products/igorpro/igorpro.htm