

Materials List for:

Quantitative 3D *In Silico* Modeling (q3DISM) of Cerebral Amyloid-beta Phagocytosis in Rodent Models of Alzheimer's Disease

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Materials

Name	Company	Catalog Number	Comments
Isoflurane	Abbott	NDC 0044-5260-05	
Dissecting scissors	VWR	82027-582	
Dissecting scissors Blunt tip	VWR	82027-588	
Tweezers	VWR	94024-408	
23 G needle	VWR	BD305145	
peristaltic pump FH10	Thermo Scientific	72-310-010	
PBS 10x	Bioland Scientific	PBS01-02	Phosphate-buffered Saline; Working concentration 1x
Adult Mouse Brain Matrix, Coronal slices, Stainless Steel 1 mm	Kent Scientific	RBMS-200C	
Adult Rat Brain Matrix, Coronal slices, Stainless Steel 1 mm	Kent Scientific	RBMS-305C	
32% Paraformaldehyde aqueous solution (PFA)	EMS	15714-S	Caution: Toxic. Working concentration: 4% in PBS
Ethanol	VWR	89125-188	Various concentrations, see protocol
Tissue-Tek Uni-cassettes Sakura	VWR	25608-774	
Embedding and Infiltration Paraffin	VWR	15147-839	
Microtome Leica RM2125	Leica Biosystems		
Disposable Microtome Blades	VWR	25608-964	
Water bath Leica HI 1210	Leica Biosystems		
Micro slide Superfrost plus	VWR	48311-703	
Xylene	Sigma-Aldrich	534056-4X4L	Caution: Toxic
Target Retrieval Solution 10x	DAKO	S1699	Working concentration 1x
KimWipes	VWR	21905-026	
Hydrophobic PAP pen	VWR	95025-252	
Triton X-100	VWR	97062-208	
Normal Donkey Serum (NDS)	Jackson Immuno	017-000-121	
Coverslips	VWR	48393081	
Prolong Gold antifade reagent with DAPI	Life Technologies	P36935	
Glass Slide Rack	VWR	100492-942	
Iba1 antibody (polyclonal, rabbit)	Wako	019-19741	Working concentration 1:200
Iba1 antibody (polyclonal, goat)	LifeSpan Bioscience	LS-B2645	Working concentration 1:200
rat CD68 [KP1] antibody (monoclonal, mouse)	Abcam	ab955	Working concentration 1:200

mouse CD68 [FA-11] antibody (monoclonal, rat)	Abcam	ab53444	Working concentration 1:200
mouse CD107a (LAMP1) antibody (monoclonal, rat)	Affymetrix	14-1071	Working concentration 1:100
Beta-Amyloid, 17 - 24 (4G8) antibody (monoclonal, mouse)	Covance	SIG-39220	Working concentration 1:200
Beta-Amyloid, 1 - 16 (6E10) antibody (monoclonal, mouse)	Covance	SIG-39320	Working concentration 1:200
OC antibody (polyclonal, rabbit)	Gifted by D. H. Cribbs and C. G. Glabe (UC Irvine)	Working concentration 1:200	
Alexa Fluor 488 mouse secondary antibody	Invitrogen	A-11001	Working concentration 1:1,000
Alexa Fluor 488 rat secondary antibody	Invitrogen	A-11006	Working concentration 1:1,000
Alexa Fluor 594 rabbit secondary antibody	Invitrogen	A-11037	Working concentration 1:1,000
Alexa Fluor 594 goat secondary antibody	Invitrogen	A-11080	Working concentration 1:1,000
Alexa Fluor 647 mouse secondary antibody	Invitrogen	A-21235	Working concentration 1:1,000
Alexa Fluor 647 rabbit secondary antibody	Invitrogen	A-21443	Working concentration 1:1,000
Immersion oil	Nikon		
A1 Confocal microscope	Nikon		
NIS Elements Advanced Research software	Nikon		
Imaris:Bitplane software version 7.6	Bitplane		"coloc" and "supass" modules are used. Alternatively, the open-source freeware ImageJ can be used for colocalization analysis of confocal z-stacks datasets.