

Materials List for:

Observation of the Ciliary Movement of Choroid Plexus Epithelial Cells *Ex Vivo*

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Materials

Name	Company	Catalog Number	Comments
Required reagents			
for live cell imaging			
ethanol	Wako Chemicals	057-00456	
Leibovitz L-15 medium	Life Technologies	11415-064	
for SEM preparation			
ethanol	Wako Chemicals	057-00456	
Hank's balanced salt solution	Life Technologies	14170112	
paraformaldehyde	Merck	1040051000	
glutaraldehyde	Nacalai tesque	17003-05	
isoamyl acetate	Nacalai tesque	02710-95	
Molecular Sieves 4A 1/8	Wako Chemicals	130-08655	for preparation of anhydrous ethanol
phosphate buffer saline (PBS)	Sigma-Aldrich	D1408	
phosphate buffer, 0.1 M			To make 100 ml, mix 19.0 ml of 0.1 M NaH ₂ PO ₄ and 81.0 ml of 0.1 M Na ₂ HPO ₄
monosodium phosphate (dihydrate)	Nacalai tesque	31718-15	
disodium phosphate (anhydrous)	Nacalai tesque	31801-05	
sucrose	Nacalai tesque	30406-25	
osmium tetroxide	Nisshin EM	300	
dry ice			
Name	Company	Catalog Number	Comments
Tools and materials for dissection			
for both live imaging and SEM preparation			
stereo microscope	Olympus	SZX7	
flat paper towel			
Φ10 cm plastic dish			
100 ml beaker			
straight operating scissors	Sansyo	S-2B	
watchmaker forceps	Dumont	No.DU-3 or -4, INOX	
for live cell imaging			
glass bottom dish	Matsunami Glass	D110300	
for SEM preparation			

aluminum foil			
5 ml glass vial with a polyethylene cap	Nichiden Rika-Glass	PS-5A	
transfer pipette	Samco Scientific	SM251-1S	for specimen transfer
toothpick			for specimen transfer
ion sputter with gold-palladium	Hitachi	E-1030	
critical point dryer	Hitachi	HCP-2	
Name	Company	Catalog Number	Comments
Microscopic equipment and materials			
for live cell imaging			
inverted microscope	Olympus	IX81	
100 W mercury lamp housing and power supply	Olympus	U-ULH and BH2-RFL-T3	
100 W mercury lamp	Ushio	USH103D	
DIC condenser, n.a. 0.55	Olympus	IX-LWUCD	
electrical shutter	Vincent Associates	VS35S22M1R3-24 and VMM-D1	manual shutter can be used.
band-pass filter (400-700 nm, Φ 45 mm)	Koshin Kagaku	C10-110621-1	
ND filter (Φ 45 mm)	Olympus	45ND6, 45ND25	combination of 25% and 6% ND filters are used
objective lens (water immersion) with DIC element	Olympus	UApo 40XW/340, n.a., 1.15 with IX-DPAO40	
high-speed video camera	Allied Vision Technologies	GE680	\geq 200 Hz frame rate and 1 msec expose time
image acquisition / analysis software	in-hous software	TI Workbench	capable of acquisition at high frame rates.
PC for camera control / analysis	Apple	Mac Pro	
vibration isolation table	Meiritsu Seiki	AD0806	
weight for tissue	Warner Instruments	slice anchor kits	It can be made with nylon mesh glued to a U-shape squashed Φ 0.5 mm platinum wire.
cover glass (alternative weight for tissue)	Matsunami	made-to-order	A cover glass can be used as a tissue weight.
for SEM			
inverted microscope	Olympus	IX81	
scanning electron microscope	JEOL	JSM-6510	