

Materials List for

In Vivo Visualization of Spontaneous Activity in Neonatal Mouse Sensory Cortex at a Single-neuron Resolution

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Materials

Name	Company	Catalog Number	Comments
20× objective lens (water immersion)			
250 mL Vacuum Filter/Storage Bottle System	Corning	431096	
4%-paraformaldehyde phosphate buffer solution (4% PFA)	Nacalai	09154-85	
Acrylic resin (UNIFAST II)	GC	N/A	
Agarose	Sigma	A9793	
Aspirator tube assembly	Drummond	2-040-000	
CaCl ₂ •2H ₂ O	Nacalai	06731-05	
Electroporator	BEX	GEB14	
Eye drop (Scopisol)	Senju Pharmaceutical	N/A	
Fluorescence stereo microscope	Leica	M165FC	
Glucose	Nacalai	16806-25	
Heating pad	Muromachi Kikai	FHC-HPS	
HEPES	Gibco	15630-080	
Isoflurane	Pfizer	N/A	
KCl	Nacalai	28514-75	
MgSO ₄ •7H ₂ O	Wako	131-00405	
Micropipette puller	Narishige	PC-100	
Multiphoton laser	Spectra-Physics	Mai Tai eHP DeepSee	
Multiphoton microscope	Zeiss	LSM 7MP	
NaCl	Nacalai	31320-05	
Non-woven fabric (Kimwipe)	Kimberly Clark	S-200	
Phosphate buffered saline (PBS)	Nacalai	27575-31	
Plasmid: CAG-loxP-STOP-loxP-GCaMP6s-ires-tTA-WPRE	Addgene	pK175	

Plasmid: TRE-nCre	Addgene	pK031	
Precision calibrated micropipets	Drummond	2-000-050	
Razor blade	Feather	FA-10	
Rimadyl (50 mg/mL Carprofen)	Zoetis JP	N/A	
Round cover glass, 3-mm-diameter	Matsunami	CS01078	
Saline	Otsuka	035175315	
Sodium pentobarbital	Nacalai	26427-72	
Stage for imaging living pup (two single-axis translation stage for XY positioning, two-axis goniometer, base plate, adjustable pillar for z positioning)	ThorLabs	LT1/M, GN2/M, BM2060/M, MLP01/M	
TCA-RFP mouse	N/A	N/A	Mizuno et al., 2018a
Tissue adhesive (Vetbond)	3M	1469SB	
Titanium bar	Endo Scientific Instrument	N/A	Custom made (Mizuno et al., 2018b)
Titanium bar fixing plate		N/A	Custom made (Mizuno et al., 2018b)
Trypan blue	Sigma	T8154	
Tweezers with platinum plate electrode, 5 mm diameter	BEX	CUY650P5	
Wild-type ICR mouse	Nihon SLC	Slc:ICR	