

Materials List for

Classification of Neural Stem Cell Activation State *In Vitro* using Autofluorescence

Christopher S. Morrow¹, Amani A. Gillette^{2,3}, Melissa C. Skala^{2,3}, Darcie L. Moore¹

¹Department of Neuroscience, University of Wisconsin-Madison ²Morgridge Institute for Research ³Department of Biomedical Engineering, University of Wisconsin-Madison

Corresponding Author

Darcie L. Moore
darcie.moore@wisc.edu

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jove.com/video/63110

Materials

Name	Company	Catalog Number	Comments
40x Water objective lens	Nikon	MRD77410	Objective lens used in multiphoton microscope in Part 3
8 well cuvette	Ibidi	80826-90	For imaging aNSCs/qNSCs
Analog power meter	Thorlabs	PM100A	Used in multiphoton microscope in Part 3
Antibiotic-Antimycotic (100X) (PSF)	Thermo Fisher	15240062	Antibiotic for NSC media
B-27	Invitrogen	17504044	Nutrient supplement for NSC media
BMP4	Fisher Scientific	5020BP010	Factor for inducing quiescence
Bovine serum albumin	Sigma	A4919-25G	For making BMP4
Chameleon ultrafast laser	Coherent	N/A	Laser used in multiphoton microscope in Part 3
Confocal microscope	Nikon	C2	Microscope used for Part 1
DMEM/F-12 (without GlutaMAX)	Invitrogen	11320033	Base media for NSCs
DNase	Sigma	D5025-15KU	Added to trypsin inhibitor
EdU assay kit	Invitrogen	C10337	Proliferation assay for cell culture
EGF	PeproTech	AF-100-15-500UG	Growth factor for NSC media
FGF	PeproTech	100-18B	Growth factor for NSC media
Fluorescent activated cell sorter	BD	FACSAria	Fluorescent Activated Cell Sorter used for Part 2
Heparin	Sigma	H3149-50KU	Additive for NSC media
L-15	Invitrogen	21083027	For preparing trypsin inhibitor solution
Laminin	Sigma	L2020-1MG	For coating glassware
Nikon TiE inverted microscope	Nikon	N/A	Microscope frame Used for Part 3
PLO	Sigma	P3655-100MG	For coating glassware
SPC-150 Single photon counting electronics	Becker and Hickl	N/A	Used in multiphoton microscope in Part 3
Trypsin (for trypsinizing pellets of aNSCs that were growing as spheres or monolayers)	Gibco	15090046	For trypsinizing neurospheres or adherent aNSCs

Trypsin (for trypsinizing qNSCs)	Gibco	25200072	For trypsinizing adherent qNSCs
Trypsin inhibitor	Sigma	T6522-100MG	For inhibiting trypsinization of aNSCs
Urea crystals	Sigma	U5128-5G	Used to collect an IRF
Versene	Thermo Fisher	15040066	For preparing trypsin