

Materials List for

# DetectSyn: A Rapid, Unbiased Fluorescent Method to Detect Changes in Synapse Density

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## URL

jove.com/video/63139

## Materials

Name	Company	Catalog Number	Comments
10x PBS	Fisher Scientific	BP39920	PBS made in house works, as well.
24 well plates	Fisher Scientific	FB012929	For tissue slices, pre-sterilized plates may be unnecessary.
50 mL conical tubes	Fisher Scientific	14-432-22	
Aluminium foil	Fisher Scientific	15-078-290	
Chicken anti-MAP2 antibody	Abcam	ab5392	
Clear nail polish	Fisher Scientific	NC1849418	Other clear nail polish works, as well.
Cold block	Fisher Scientific	13131012	
Computer workstation	HP		
Confocal or fluorescent microscope	Nikon	A1R HD25	
Donkey anti-chicken FITC	Fisher Scientific	SA1-72000	
Duolink donkey anti-Mouse PLUS	Sigma	DUO92001	
Duolink donkey anti-Rabbit MINUS	Sigma	DUO92005	
Duolink In Situ Detection Reagents Far Red	Sigma	DUO92013	Contains ligation stock, amplification stock, ligase, and polymerase.
Duolink In Situ Mounting Medium with DAPI	Sigma	DUO82040	
Duolink In Situ Wash Buffers, Fluorescence	Sigma	DUO82049	Contains Wash Buffer A and Wash Buffer B; dilute Wash Buffer B to 1% in diH <sub>2</sub> O for 1% Wash Buffer B.
Fine-tipped paintbrush	Fisher Scientific	NC9691026	Sable hair, size 00 or 000, can also find at craft stores
Fisherbrand Cover Glasses: Rectangles	Fisher Scientific	12545MP	Cover glass is unnecessary for cultured neurons already on glass coverslips.
Fisherbrand Superfrost Plus Microscope Slides	Fisher Scientific	1255015	For cultured neurons already on glass coverslips, Superfrost slides may be unnecessary.
Freezer, -20°C	VWR	76449-108	
Glass coverslips	Fisher Scientific	125480	
Glycine	Fisher Scientific	BP381-1	

Image processing software	e.g. NIS Elements, ImageJ		
Incubator	Fisher Scientific	15-015-2633	
Large petri dish, 100mm	Fisher Scientific	FB0875712	
Molecular grade water	Fisher Scientific	BP24701	
Mouse anti-Synapsin1 antibody	Synaptic Systems	106-011	
Normal donkey serum	Jackson ImmunoResearch	017-000-121	
Orbital shaker	Fisher Scientific	02-106-1013	
Parafilm	Fisher Scientific	13-374-10	
Pipette tips	Fisher Scientific	02-707-025	
Pipettes	Fisher Scientific	14-388-100	Working volumes range from 3 $\mu$ L to 500 $\mu$ L
Plastic pasteur pipette	Fisher Scientific	02-708-006	
Precision tweezers/forceps	Fisher Scientific	12-000-122	
Rabbit anti-PSD95 antibody	Abcam	ab18258	Other antibody pairs may work, as well, with optimization.
Refrigerator	VWR	76470-402	
Small petri dish, 60 mm	Fisher Scientific	FB0875713A	
Timer	Fisher Scientific	14-649-17	
Tween 20	Fisher Scientific	BP337-100	