

Materials List for:

# Cell Lineage Analyses and Gene Function Studies Using Twin-spot MARCM

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## Materials

Name	Company	Catalog Number	Comments
Carbon dioxide (CO <sub>2</sub> )	Local vendor	n.a.	Anesthetize flies
CO <sub>2</sub> pad	Local vendor	n.a.	Sort, cross and transfer flies
10x PBS pH 7.4	Uniregion Bio-Tech (or other vendors)	PBS001	Dissect, rinse, wash and immunostain fly brains
Formaldehyde	Sigma-Aldrich	252549	Fix fly brains
Triton X-100	Sigma-Aldrich	T8787	Rinse, wash and immunostain fly brains
Normal goat serum	Jackson ImmunoResearch	005-000-121	Immunostain fly brains
Rat anti-mouse CD8 antibody	Invitrogen	MCD0800	Immunostain fly brains
Rabbit anti-DsRed antibody	Clontech	632496	Immunostain fly brains
Mouse anti-Brp antibody	Developmental Studies Hybridoma Bank	nc82	Immunostain fly brains
Goat anti-rat IgG antibody conjugated with Alexa Fluor 488	Invitrogen	A11006	Immunostain fly brains
Goat anti-rabbit IgG antibody conjugated with Alexa Fluor 546	Invitrogen	A11035	Immunostain fly brains
Goat anti-mouse IgG antibody conjugated with Alexa Fluor 647	Invitrogen	A21236	Immunostain fly brains
SlowFade gold antifade reagent	Molecular Probes	S36936	Mount fly brains and protect quenching of fluorescence
PYREX 9 depression glass spot plate	Corning	7220-85	Dissect, rinse, wash and immunostain fly brains
Sylgard 184 silicone elastomer kit	World Precision Instruments	SYLG184	Make black Sylgard dishes to protect forceps during brain dissection
Activated charcoal	Sigma-Aldrich	242276-250G	Make black Sylgard dishes
Dumont #5 forceps	Fine Science Tools	11252-30	Dissect and mount fly brains
Micro slide	Corning	2948-75x25	Mount fly brains
Micro cover glass No. 1.5	VWR International	48366-205	Mount fly brains
Nail polish	Local vendor	not available	Seal micro cover glass on micro slides
Incubator (or other vendors)	Kansin Instruments	LT1603	culture flies at 25 °C
Water bath (or other vendors)	Kansin Instruments	WB212-B2	Induce heat-shock in flies at 37 °C
Orbital shaker (or other vendors)	Kansin Instruments	OS701	Wash and immunostain fly brains

Dissection microscope	Leica	EZ4	Sort, cross and transfer flies; Dissect, rinse, wash and immunostain fly brains
Confocal microscope	Zeiss (or other vendors)	LSM 700 (or other models)	Image tsMARCM clones
image-processing software 1 (e.g., Zeiss LSM image browser)	Zeiss	not available	Project stacks of confocal images
image-processing software 2 (e.g., ImageJ)	not available	not available	Count cell number of tsMARCM clones