

In Vivo Osteo-organoid Approach for Harvesting Therapeutic Hematopoietic Stem/Progenitor Cells

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Materials

Name	Company	Catalog Number	Comments
AF700-anti-CD11b (M1/70)	eBioscience	56-0112-82	Store at 4 °C. Dilute 1:200 for staining.
AF700-anti-Sca-1 (D7)	BioLegend	108141	Store at 4 °C. Dilute 1:200 for staining.
APC-anti-CD3e (145-2C11)	Tonbo	20-0031-U100	Store at 4 °C. Dilute 1:200 for staining.
bio-anti-CD34 (RAM34)	eBioscience	13-0341-82	Store at 4 °C. Dilute 1:200 for staining.
BV421-anti-CD127 (IL-7Rα)	BioLegend	135023	Store at 4 °C. Dilute 1:200 for staining.
BV510-anti-CD48 (HM48-1)	BioLegend	103443	Store at 4 °C. Dilute 1:200 for staining.
BV711-anti-CD16/32 (93)	BioLegend	101337	Store at 4 °C. Dilute 1:200 for staining.
Capillary tube	Shanghai Huake Labware Co.	DC616297403604-100mm/0.5mm	
Cell strainer	CORNING	352340	
Ethanol	GENERAL-REAGENT	01158566	
Ethylenediamine tetraacetic acid (EDTA) solution	Servicebio	G1105	
Ethylenediaminetetraacetic acid dipotassium salt dihydrate (EDTA-K2)	Solarbio	E8651	
FITC-anti-CD45.2 (104)	BioLegend	109806	Store at 4 °C. Dilute 1:200 for staining.
Flowjo	Becton, Dickinson & Company		A flow cytometry.
Gelatin sponge	Jiangxi Xiangen Co.		Use under sterile conditions.
HBSS without Ca ²⁺ and Mg ²⁺	Gibco	14170112	HBSS without Ca ²⁺ and Mg ²⁺ can prevent cell aggregation.
Hematology analyzer	Sysmex	pocH-100i Diff	

iodine swabs	Xiangtan Mulan Biological Technology Co., Ltd.	01011	To prevent the infection after operation.
Isoflurane	RWD	R510-22-10	To avoid adverse effects of anesthesia waste gases on the environment and laboratory personnel, a gas recovery system should be used in conjunction.
Kraft paper			absorbent paper
LIVE/DEAD Fixable Near IR Dead Cell Staining Kit(used in 3.4.5)	Thermo Fisher Scientific	L34962	A live/dead staining kit. Store at -20 °C. Dissolve in 50 µL of DMSO for working solution.
lubricating vet ointment	Pfizer		To prevent dryness and counteract the ocular irritations caused by isoflurane.
Neutral balsam	Solarbio	G8590	
nylon filter	Shanghai Shangshai Wire Mesh Manufacturing Co., Ltd.		Used for cell filtration.
Paraffin liquid	Macklin	P815706	
Paraformaldehyde (PFA) solution	Servicebio	G1101	Immersion fixation is used for routine animal tissues. The volume of fixative used is generally 10-20 times the tissue volume, and fixation at room temperature for 24 hours is sufficient.
PE-anti-CD45.1 (A20)	BioLegend	110708	Store at 4 °C. Dilute 1:200 for staining.
PE-CF594-anti-CD135 (A2F10.1)	BD Biosciences	562537	Store at 4 °C. Dilute 1:200 for staining.
PE-Cy5-anti-c-kit (2B8)	BD Biosciences	105809	Store at 4 °C. Dilute 1:200 for staining.
PE-Cy7-anti-B220 (RA3-6B2)	BioLegend	103222	Store at 4 °C. Dilute 1:200 for staining.
PE-Cy7-anti-CD150 (TC15-12F12.2)	BioLegend	115914	Store at 4 °C. Dilute 1:200 for staining.
PE-Dazzle594-anti-CD4 (GK1.5)	BioLegend	100456	Store at 4 °C. Dilute 1:200 for staining.
Pentobarbital sodium salt	Sigma-Aldrich	57-33-0	Prepare for use at a concentration of 1% (w/v).
PerCp-Cy5.5-anti-CD8a (53-6.7)	BioLegend	100734	Store at 4 °C. Dilute 1:200 for staining.
PerCp-Cy5.5-anti-lineage cocktail	BD Biosciences	561317	Store at 4 °C. Dilute 1:10 for staining.
Red blood cell lysis buffer	Beyotime	C3702	Store at 4 °C. Use in clean bench.
rhBMP-2	Shanghai Rebone Biomaterials Co.		The concentration of rhBMP-2 in the stock solution is 1.0 mg/mL.
Staining buffer	BioLegend	420201	Store at 4 °C.
Xylene	GENERAL-REAGENT	01018114	
Zombie UV Fixable Viability Kit (used in 6.2.5)	BioLegend	423108	A live/dead staining kit. For reconstitution, bring the kit to room temperature; add 100 µL of DMSO to one vial of Zombie UV dye until fully dissolved.