

# Direct Reprogramming of Mouse Fibroblasts into Melanocytes

 Yi-Xuan Zhang<sup>1,2</sup>, Li-Ping Liu<sup>1,2</sup>, Ming Jin<sup>1,2</sup>, Hui Sun<sup>1,2</sup>, Han-Lin Zhang<sup>1,2</sup>, Yu-Mei Li<sup>1,2</sup>
<sup>1</sup>Institute for Regenerative Medicine, Jiangsu University <sup>2</sup>Department of Dermatology, Affiliated Hospital of Jiangsu University

## Corresponding Author

 Yu-Mei Li  
 yumeili@ujs.edu.cn

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jove.com/video/62911

## Materials

Name	Company	Catalog Number	Comments
0.05% Trypsin-EDTA	Gibco	25300-062	Stored at -20 °C
0.45 µM filter	Millipore	SLHVR33RB	
5 mL polystyrene round bottom tube	Falcon	352052	
95%/100% ethanol	LANBAO	210106	Stored at RT
Adenine	Sigma	A2786	Stock concentration 40 mg/mL Final concentration 24 µg/mL
Alexa Fluor 555 Goat anti-Mouse IgG2a	Invitrogen	A21137	Dilution of 1:500 to use
Antibiotics(Pen/Strep)	Gibco	15140-122	Stored at -20 °C
Anti-TRP1/TYRP1 Antibody	Millipore	MABC592	Host/Isotype: Mouse IgG2a Species reactivity: Mouse/Human Dilution of 1:200 to use
Anti-TRP2/DCT Antibody	Abcam	ab74073	Host/Isotype: Rabbit IgG Species reactivity: Mouse/Human Dilution of 1:200 to use
CHIR99021	Stemgent	04-0004	Stock concentration 10 mM Final concentration 3 µM
Cholera toxin	Sigma	C8052	Stock concentration 0.3 mg/mL Final concentration 20 pM
Cy3 Goat anti-Rabbit IgG (H+L)	Jackson ImmunoResearch	111-165-144	Dilution of 1:500 to use
DMEM (High glucose)	HyClone	SH30243.01	Stored at 4 °C
DMSO	Sigma	D2650	Stored at RT
FBS	Gibco	10270-106	Stored at -20 °C Heat-inactivated before use
Gelatin	Sigma	G9391	Stored at RT
GFP-PURO plasmids (Mitf, Sox10, Pax3, Sox2, Sox9 and Snai2)	Hanheng Biological Technology Co., Ltd.	pHBLPm003198 pHBLPm001143 pHBLPm002968 pHBLPm002981 pHBLPm004348 pHBLPm000325	Stored at -20 °C
Hematoxylin	Abcam	ab220365	Stored at RT
Human EDN3	American-Peptide	88-5-10A	Stock concentration 100 µM Final concentration 0.1 µM
Hydrocortisone	Sigma	H0888	Stock concentration 100 µg/mL

			Final concentration 0.5 µg/mL
L-DOPA	Sigma	D9628	Stored at RT
Lipofectamine 2000	Invitrogen	11668-019	Transfection reagent, stored at 4 °C
Masson-Fontana staining kit	Solarbio	G2032	Stored at 4 °C
Neutral balsam	Solarbio	G8590	Stored at 4 °C
Paraformaldehyde	Sigma	P6148	Stored at RT
PBS (-)	Gibco	C10010500BT	Stored at RT
Phorbol 12-myristate 13-acetate (TPA)	Sigma	P8139	Stock concentration 1 mM Final concentration 200 nM
Polybrene	Sigma	H9268	cationic polymeric transfection reagent; Stock concentration 8 µg/µL Final concentration 4 ng/µL
Puromycin	Gibco	A11138-03	Stored at -20 °C
Recombinant human bFGF	Invitrogen	13256-029	Stock concentration 4 µg/mL Final concentration 10 ng/mL
Recombinant human insulin	Sigma	I3536	Stock concentration 10 mg/mL Final concentration 5 µg/mL
Recombinant human SCF	R&D	255-SC-010	Stock concentration 200 µg/mL Final concentration 100 ng/mL
RPMI-1640	Gibco	11875-093	Stored at 4 °C
Xylene	Sigma	1330-20-7	Stored at RT