

Y-27632 Enriches the Yield of Human Melanocytes from Adult Skin Tissues

Chang Liu¹, Shuangshuang Wang¹, Man Liu², Fuxiang Bai¹, Zhihong Chen³, Ping Wang⁴, Jun Mi^{1,5}, Xunwei Wu¹

¹Department of Tissue Engineering and Regeneration, School and Hospital of Stomatology, Cheeloo College of Medicine, Shandong University & Shandong Key Laboratory of Oral Tissue Regeneration & Shandong Engineering Laboratory for Dental Materials and Oral Tissue Regeneration ²Shijiazhuang Shimen Experimental School ³Qilu Children's Hospital of Shandong University ⁴Qilu Hospital of Shandong University ⁵Shenzhen Research Institute of Shandong University

Corresponding Authors

Jun Mi

mijun1984@126.com

Xunwei Wu

xunwei_2006@hotmail.com

Citation

Liu, C., Wang, S., Liu, M., Bai, F., Chen, Z., Wang, P., Mi, J., Wu, X. Y-27632 Enriches the Yield of Human Melanocytes from Adult Skin Tissues. *J. Vis. Exp.* (), e61226, doi:10.3791/61226 (2020).

Date Published

July 8, 2020

DOI

10.3791/61226

URL

jove.com/video/61226

Materials

Name	Company	Catalog Number	Comments
Alexa fluor-594 donkey anti-mouse IgG	Thermo Fisher Scientific	A21203	For Immunofluorescence
Alexa fluor-594 donkey anti-rabbit IgG	Thermo Fisher Scientific	R37119	For Immunofluorescence
Cell Culture Dish	Eppendorf	30702115	For cell culture
Cell Strainer	Corning incorporated	431792	Cell filtration
15 mL Centrifuge Tube	KIRGEN	171003	For cell centrifuge
50 mL Centrifuge Tube	KIRGEN	171003	For cell centrifuge
CO2 Incubator	Thermo Scientific	51026333	For cell incubating
Constant Temperature Shaker	Shanghai Boxun	150036	For water bath
DAPI	Abcam	ab104139	For Immunofluorescence
Dispase	Gibco	17105-041	For melanocyte isolation
DMEM	Thermo Scientific	C11995500	Component of neutralization medium
Fetal Bovine Serum	Biological Industries	04-001-1AC5	Component of neutralization medium
Fluorescence microscope	Olympus	5E44316	For Immunofluorescence
Forskolin	MCE	HY-15371	Induce pigmentation
Glutamine	Thermo Fisher Scientific	25030081	melanocyte culture medium
Ham's F12	Thermo Scientific	11330032	melanocyte culture medium
Inverted microscope	Olympus	5C42258	For cell microscopic observation
3-isobutyl-1-methyl xanthine (IBMX)	Sigma	17018	melanocyte culture medium
mouse anti-human MITF	Abcam	ab12039	For Immunofluorescence
Na ₃ VO ₄	Sigma	S6508	melanocytes culture medium
N6,2'-O-dibutyryladeno-sine 3',5'-cyclic monophosphate (dbcAMP)	Sigma	D0627	melanocyte culture medium
12-O-tetradecanoyl phorbol-13-acetate (TPA)	Sigma	79346	melanocyte culture medium

Penicillin Streptomycin	Thermo Scientific	15140-122	Antibiotics
rabbit anti-human Ki-67	Abcam	ab15580	For Immunofluorescence
Phosphate buffered solution	Solarbio Life Science	P1020-500	Washing solution
Sorvall ST 16R Centrifuge	Thermo Scientific	75004380	Cell centrifugation
TC20TM automated cell counter	Bio-Rad	1450102	Automatic cell counting
0.05% Trypsin	Life Technologies	25300-062	For melanocyte dissociation
Y-27632	Sigma	Y0503	For melanocyte isolation