

Product Description

Melanocytes are neural crest-derived cells that produce melanin via melanogenesis. Melanocytes localize to several tissues including the epidermis, eye, inner ear and leptomeninges. Dysregulation of melanocyte migration, proliferation, or survival during embryonic development thus causes congenital disorders in those tissues as seen in Tietz syndrome, Waardenburg syndrome, and piebaldism [1]. In the bottom layer of skin epidermis, melanocytes synthesize and transfer dark-colored melanin to surrounding keratinocytes to give skin pigmentation. Melanin also blocks UV-B light to protect the hypodermis from solar exposure-induced photodamage. Progress in culture techniques, along with an improved understanding of melanocyte biology, has led to a successful culture system to model melanomas, inner ear homeostasis, vitiligo, and mitochondrial dysfunction in Duchenne Muscular Dystrophy [2-4].

iXCells Biotechnologies provides high quality Human Epidermal Melanocytes-medium (HEM-m), which are isolated from neonatal human skin and cryopreserved at P1, with >0.5 million cells in each vial. HEM-m express fibronectin and NGF-receptor (p75). They are negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast, and fungi and can further expand for 12 population doublings in Melanocyte Growth Medium (Cat# MD-0049) under the condition suggested by iXCells Biotechnologies.

Product Details

Tissue	Neonatal human skin
Package Size	0.5 million cells/vial
Passage Number	P1
Shipped	Cryopreserved
Storage	Liquid nitrogen
Growth Properties	Adherent
Media	Melanocyte Growth Medium (Cat# MD-0049)

References

- [1]. Eisinger, M. and Marko, O. (1982) Selective proliferation of normal human melanocytes in vitro in the presence of phorbol ester and cholera toxin. Proc. Natl. Acad. USA 79:2018-2022.
- [2]. Tang, A., Eller, M. S., Hara, M., Yaar, M., Hirohashi, S. and Gilchrist, B. A. (1994) E-cadherin is the major mediator of human melanocyte adhesion to keratinocytes in vitro. J. Cell Sci. 107:983-992.
- [3]. Shioda, T., Fenner, M. H. and Isselbacher, K. J. (1996) msg1, a novel melanocyte-specific gene, encodes a nuclear protein and is associated with pigmentation. Proc. Natl. Acad. Sci. USA 93:12298-12303.

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