Product Description

The epidermal layer of the skin provides an essential function as a protective barrier against insults from the external environment. The predominant cell type in the epidermis is keratinocytes and they are located in the stratified squamous epithelia. Keratinocytes are named after keratin, which is the most abundant protein in this cell. Progenitors of keratinocytes reside and divide in the basal layer of the epidermis. Progenitors of keratinocytes reside and divide in the basal layer of the epidermis. They then differentiate, migrate towards the surface of epidermis, and eventually withdraw from the cell cycle permanently. Keratinocyte proliferation, differentiation, and programmed cell death are complex and carefully choreographed processes [1]. Apart from their protective functions, keratinocytes express adhesion molecules and cytokines, further suggesting an implication in skin innate immunity, tissue homeostasis, wound healing, cancer development, and skin-based gene-therapy [2, 3].

iXCells Biotechnologies provides high quality Human Epidermal Keratinocytes-fetal (HEK-f), which are isolated from human fetal skin and cryopreserved at P0, with >0.5 million cells in each vial. HEK-f express cytokeratine-18 and -19, and are negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast, and fungi. They can further expand for 12 population doublings in Keratinocyte Growth Medium (Cat# MD-0047) under the condition suggested by iXCells Biotechnologies.

Product Details

Tissue	Fetal human skin
Package Size	0.5 million cells/vial
Passage Number	P0
Shipped	Cryopreserved
Storage	Liquid nitrogen
Growth Properties	Adherent
Media	Keratinocyte Growth Medium (Cat# MD-0047)

References

[1] Eckert, R. L., Efimova, T., Dashti, S. R., Balasubramanian, S., Deucher, A., Crish, J. F., Sturniolo, M. and Bone, F. (2002) Keratinocyte survival, differentiation, and death: many roads lead to mitogen-activated protein kinase. J Investig Dermatol Symp Proc 7(1):36-40.
[2] Song, P. I., Park, Y. M., Abraham, T., Harten, B., Zivony, A., Neparidze, N., Armstrong, C. A. and Ansel, J. C. (2002) Human keratinocytes express functional CD14 and toll-like receptor 4. J Invest Dermatol 119(2):424-32.
[3] de Panfilis, G., Semenza, D., Lavazza, A., Mulder, A. A., Mommaas, A. M. and Pasolini, G. (2002) Keratinocytes constitutively express the CD95 ligand molecule on the plasma membrane: an in situ immunoelectron microscopy study on ultracryosections of normal human skin. Br J Dermatol. 147(1):7-12.

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