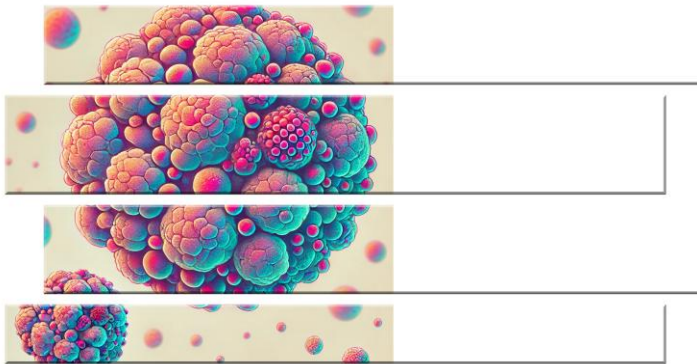




PRODUCT DATA SHEET

Human Dermal Fibroblasts-neonatal (HDFn)

SKU: TDC-P1201

Product Details

Catalog Number: TDC-P1201

Organism: *Homo Sapiens*, Human

Cell Type: Fibroblast

Tissue: Skin

Age: Neonate

Gender: Male

Clinical Information: Healthy (with no known disease phenotypes)

Package Size: 1 x 10⁶ cells/vial

Passage Number: P1

Growth Properties: Adherent

Associated Media: HDF Growth Medium (Cat. # TDM-1015)

Storage Conditions & Shipment

Product Format/Shipped: Cryopreserved / Dry ice

Storage: Liquid nitrogen

Safety Precaution

PLEASE READ BEFORE HANDLING ANY FROZEN VIALS. *Please wear appropriate Personal*

Description

Human dermal fibroblasts (HDFs) play a pivotal role in the development, structure, and repair of the skin. They are key components of the extracellular matrix (ECM), producing and maintaining collagen, elastin, and other structural proteins that provide mechanical support and elasticity to the skin. HDFn, which are obtained from the skin of newborns, is often preferred in research due to their proliferative potential and the ability to more closely mimic the behavior of fibroblasts during skin development and wound healing. In addition, they secrete large quantities of hyaluronan in response to inflammatory stimuli.

Human neonatal dermal fibroblasts were cryopreserved at the end of the primary culture. Normal Human Epidermal Keratinocytes (Cat# TDC-P1202) from matched donors are available for certain lots.

Product Data

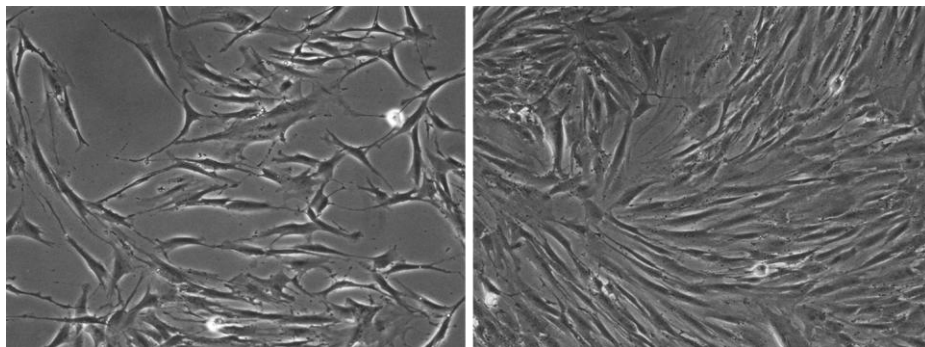


Figure 1, Phase contrast images of HDFn: Representative image showing the typical spindle-shaped morphology of HDFn with well-defined, elongated cell bodies and prominent cytoplasmic extensions. Increased confluence of the fibroblasts after 16hours (Left) and 48 hours of culture (Right), demonstrating the typical dense, fibroblastic network formed in vitro.

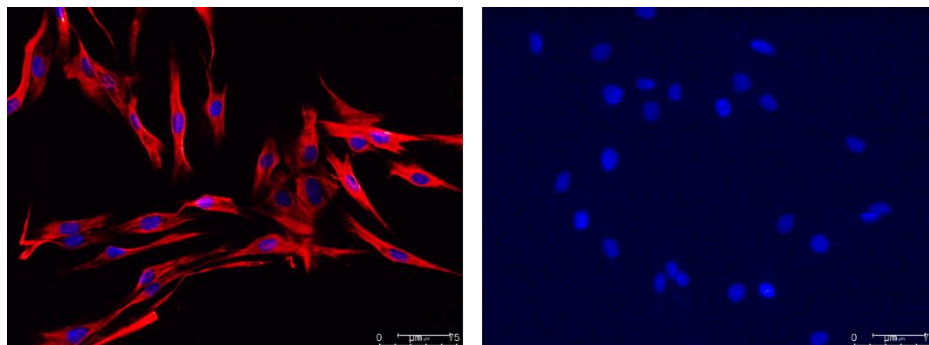


Figure 2, Human dermal fibroblasts, neonatal, stained with anti-vimentin and anti-cytokeratin antibodies: cytoplasmic vimentin is shown in red; nuclei were counterstained with Dapi and are shown in blue (Left). Staining of fibroblasts with anti-cytokeratin: no staining was observed with this antibody. Nuclei are shown in blue (Right). Scale bar= 75um.

Applications

1. Wound Healing Studies
2. Fibrosis and Scar Formation
3. Skin Regeneration
4. In Vitro Models for Skin Diseases
5. Cosmetic and Dermatological Research

Ordering Information

Product	Description	Size	Cat. #
Human Dermal Fibroblasts (HDFn)	Human dermal fibroblasts isolated from neonatal	1x 10 ⁶ /vial	TDC-P1201
HDF Growth Medium	All-in-one ready-to-use	500ml	TDM-1015

Protocols

1. Recovering HDFn

- 1) Take the cryovial containing the frozen cells out of liquid nitrogen storage; quickly thaw the cells in a 37°C water bath by gently swirling the vial.
- 2) When there still be a small amount of ice left in the vial, take out the vial from the water bath, slowly add 1ml of prewarm HDF Growth Medium (Cat.# TDM-1015), gently pipette twice with 1ml tip.
- 3) Transfer the cells to the 15ml falcon tube containing 8ml growth medium
- 4) Spin 200g for 5min.
- 5) Discard the supernatant and resuspend the cells in 2ml growth medium and count the cells.

2. Culturing HDFn

- 1) Plate HDFn on a plate with the densities at 5000/cm² and allow them to attach in a 37°C, 5% CO₂ incubator.
- 2) Change the growth 2-3 times a week.

Disclaimers

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.