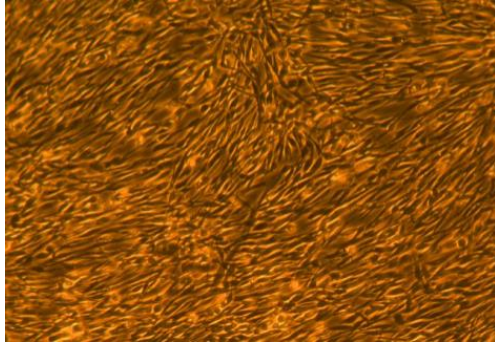


Normal Human Dermal Fibroblasts-Neonatal, Xeno-Free (HDFn-XF) Specification Sheet



Human Dermal Fibroblasts-Neonatal,
 passage 2, 5 days after inoculation
 with 2000 cells/cm² (100X)

CELL FEATURES:	
•	HDFn-XF are cryopreserved as primary cells*.
•	HDFn-XF may be utilized to establish xeno-free human feeder layers for human pluripotent stem cell cultures.
•	HDFn-XF provide an ideal <u>xeno-free</u> model to study wound healing, toxicology or basic cell biology.
•	HDFn-XF are not exposed to any animal [§] -derived material during isolation or when cultured in FibroLife Xeno-Free Complete Medium.
•	HDFn-XF are extensively tested for quality and optimal performance and Xeno-free status of all materials used in the isolation, expansion and cryopreservation of each lot is documented.
•	Lifeline guarantees performance and quality.

NORMAL HUMAN DERMAL FIBROBLASTS-NEONATAL, XENO-FREE ARE TESTED FOR:	
• Cell Count	500,000 cryopreserved cells per vial
• Proliferation and Morphology	Normal cell appearance for 15 population doublings
• Cell Viability	Minimum 70% viability when thawed from cryopreservation
• Sterility Testing	Negative for mycoplasma Negative for bacterial and fungal growth
• Virus Testing	Negative for HIV-1, HIV-2, HBV, and HCV by PCR

PART NUMBER	DESCRIPTION
FC-0037	HDFn-XF, Normal Human Dermal Fibroblasts-Neonatal, Xeno-Free [§] , Primary – 500,000 cells per vial
LL-0048	FibroLife® Xeno-Free Complete Culture Kit, 500 mL
LL-0049	Xeno-Free Fibroblast Starter Kit (includes LL-0048 components and 1 vial of cells, FC-0037)

**Lifeline Technical Note: There are different and often contradictory terminologies used by cell culture companies to define the passage number of cells. Lifeline's designation of 'primary cells' are cells that have been isolated from tissue, plated onto culture vessels, expanded, harvested and cryopreserved. The term 'secondary' indicates that the cells have been isolated, plated and expanded in culture vessels twice before being harvested for cryopreservation.*

[§]Lifeline documents that all materials used in the manufacture of products which are labeled 'Xeno-Free' have never come into contact with material of animal (non-human) origin and are not of animal (non-human) origin. FibroLife Xeno-Free Complete Medium contains human serum.

To place an order, please visit lifelinecelltech.com or call technical and customer service at 877.845.7787.

Lifeline's normal Human Dermal Fibroblasts-Neonatal, Xeno-Free

Lifeline's normal Human Dermal Fibroblasts-Neonatal, Xeno-Free (HDFn-XF), when grown in Lifeline's FibroLife® Xeno-Free Complete Medium, provide an ideal xeno-free culture system to establish xeno-free human feeder layers for human pluripotent stem cell cultures or as a model to study wound healing, toxicology, or basic cell biology.

Lifeline's HDFn-XF are cryopreserved as primary cells* to ensure the highest viability and plating efficiency. Our HDFn-XF are quality tested in FibroLife Xeno-Free Complete Medium to ensure optimal growth over a period of at least 15 population doublings.

Lifeline's HDFn-XF are not exposed to antimicrobials or phenol red when cultured in the respective Lifeline® medium. A vial of Xeno-Free Penicillin/Streptomycin (XF-PS; LS-1073) is included in FibroLife Xeno-Free Complete Culture Kit (LL-0048) for your convenience. The use of XF-PS is recommended to inhibit potential bacterial contamination of eukaryotic cell cultures. Xeno-Free phenol red is not available at this time.

Quality Testing for Guaranteed Consistency and Reproducible Results

Lifeline Cell Technology manufactures products using the highest quality Xeno-Free^s raw materials and incorporates extensive quality assurance in every production run. Exacting standards and production procedures ensure consistent performance.

The Lifeline Guarantee

Lifeline's rigorous quality control ensures sterility and performance to standardized testing criteria. Upon request, Lifeline will provide lot specific QC test results, material safety data sheets, and certificates of analysis. See complete guarantee/warranty statement at lifelinecelltech.com or contact your Lifeline representative for more information.

All donated tissues have been obtained under proper informed consent and adheres to the Declaration of Helsinki, The Human Tissue Act (UK), CFR Title 21, and HIPAA Regulations relative to obtaining and handling human tissue for Research Use.

Safety Statement

This product is for Research Use Only. This product is not approved for human or veterinary use or for use in *in vitro* diagnostics or clinical procedures.

This product contains human serum and should be handled as potentially infectious material. While the human serum used in this product has been tested, no known test method can guarantee the absence of Hepatitis B virus, Hepatitis C virus, HIV-1, HIV-2 or other infectious agents. All products which contain or have contacted human blood based products should be handled as Biosafety Level 2 (cdc.gov) and according to the Bloodborne Pathogen Standard 29 CFR 1910.1030.

Lifeline recommends storing cryopreserved vials in liquid nitrogen vapor phase. Handle cryopreserved vials with caution. Always wear eye protection and gloves when working with cell cultures. Aseptically vent any liquid nitrogen from cryopreserved vials by carefully loosening the vial cap in a biosafety cabinet prior to thawing the vials in a water bath. If vials must be stored in liquid phase, the vials should be transferred to vapor phase storage or -80°C for up to 24 hours prior to being thawed.

Call Lifeline Technical Service and Sales at 877.845.7787
or visit lifelinecelltech.com for more information

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