



Normal Human Epidermal Melanocytes-Neonatal (HEMn) Normal Human Epidermal Melanocytes-Adult (HEMa) Specification Sheet

Lifeline’s normal Human Epidermal Melanocytes (HEM), when grown in Lifeline’s DermaLife® M or DermaLife Ma Medium, provide an ideal low serum culture model, without PMA or Cholera toxin, for the accurate testing of compounds and for use in the study of cancer or dermal biology.

Lifeline’s HEM are cryopreserved as primary or secondary cells* to ensure the highest viability and plating efficiency. Our HEMn are quality tested in DermaLife M Medium and our HEMa are quality tested in DermaLife Ma Medium to ensure optimal reduced-serum growth over a period of at least 15 population doublings at rates greater than media supplemented with higher serum, PMA or Cholera toxin. Lifeline’s HEM need not be exposed to antimicrobials or phenol red when cultured in DermaLife M or DermaLife Ma Medium; an advantage since these supplements can cause cell stress and “masking effects” that may negatively impact experimental results. Lifeline offers these traditional supplements; however they are not needed, or recommended, to achieve optimal cell performance in most research applications.

CELL FEATURES:	
•	HEM are cryopreserved after primary culture or secondary culture; isolated from human skin and expanded once or twice in culture vessels before being harvested for cryopreservation.
•	HEMn can be grown in a low serum medium without phenol red or antimicrobials when cultured in DermaLife M Medium .
•	HEMa can be grown in a low serum medium without phenol red or antimicrobials when cultured in DermaLife Ma Medium .
•	Culture HEM without PMA or Cholera toxin or other artificial non-specific stimulants.
•	HEM are extensively tested for quality and optimal performance.
•	Lifeline guarantees performance and quality.

Quality Testing for Guaranteed Consistency and Reproducible Results

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

NORMAL HUMAN EPIDERMAL MELANOCYTES ARE TESTED FOR:	
• Cell Count	500,000 cryopreserved cells per vial
• Low Serum Proliferation	Population growth at various densities
• Morphology	Normal cell appearance for 15 population doublings (HEMn) or 10 population doublings (HEMa)
• Cell Viability	Minimum 50% viability when thawed from cryopreservation
• Sterility Testing	Negative for mycoplasma, bacterial or fungal growth for 14 days
• Virus Testing	Negative for HIV, HBV, and HCV by PCR
• Specific Testing	L- Dopa Oxidase Activity Assay

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

The Lifeline® Guarantee

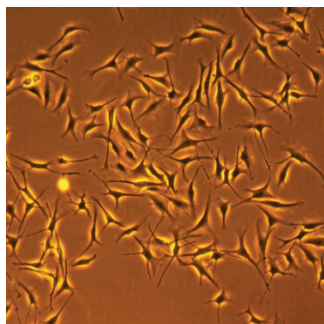
Lifeline's rigorous quality control ensures sterility and performance to standardized testing criteria. If Lifeline's products do not meet our posted performance and quality standards, we will replace them at no charge or provide a full refund. Upon request, Lifeline will provide lot specific QC test 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.

Safety Statement

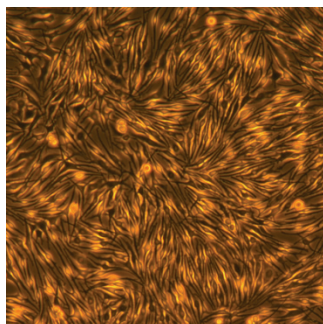
This product is for Research Use Only. This product is not approved for human or veterinary use or for use in *in vitro* diagnostics or clinical procedures.

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 liquid nitrogen vapor phase storage or -80°C for up to 24 hours prior to being thawed.

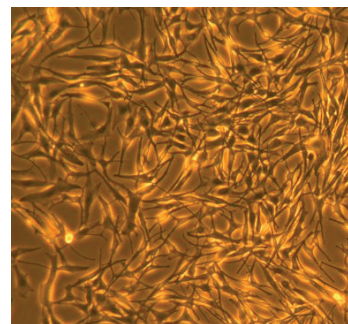
PRODUCT INFORMATION:	
Part #	Description
FC-0023	HEMn, Normal Human Epidermal Melanocytes, Neonatal, Primary - 500,000 per vial
FC-0019	HEMn, Normal Human Epidermal Melanocytes, Neonatal, Secondary - 500,000 per vial
LL-0027	DermaLife® M Medium Complete Kit (DermaLife Basal Medium, DermaLife M LifeFactors® Kit)
FC-0030	HEMa, Normal Human Epidermal Melanocytes, Adult, Secondary - 500,000 cells per vial
LL-0039	DermaLife® Ma Medium Complete Kit (DermaLife Basal Medium, DermaLife Ma LifeFactors® Kit)



HEMn, passage 4, 3 days after inoculation with 2,500 cells/cm² (100X)



HEMn, passage 4, 6 days after inoculation with 5,000 cells/cm² (100X)



HEMa, passage 3, 10 days after inoculation with 5,000 cells/cm² (100X)

**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 frozen. The term 'secondary' indicates that the cells have been isolated, plated and expanded in culture vessels twice before being harvested for cryopreservation.*

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

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