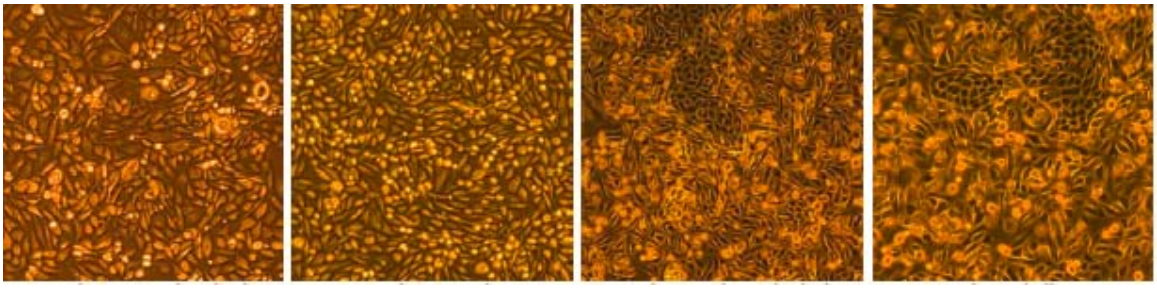
Normal Human Renal Epithelial

Specification Sheet

Mixed Renal Epithelial
Renal Cortical Epithelial
Renal Medullary Epithelial
Renal Proximal Tubule Epithelial

Lifeline's normal Human Renal Epithelial Cells, when grown in Lifeline's RenaLife™ Medium, provide an ideal low-serum culture model for the study of renal function, metabolism, nephrotoxicity or cancer research.

Lifeline's Renal Epithelial Cells are cryopreserved as primary or secondary cells* to ensure the highest viability and plating efficiency. Our Renal Epithelial Cells are quality tested in RenaLife Medium to ensure optimal reduced-serum growth over a period of at least 15 population doublings at rates equal to or greater than serum-supplemented medium. Lifeline's Renal Epithelial Cells are not exposed to antimicrobials or phenol red when cultured in RenaLife 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.



Renal Proximal Tubule | Renal Cortical | Renal Mixed Epithelial | Renal Medullary

CELL FEATURES:
• Mixed Renal Epithelial, Renal Cortical Epithelial, and Renal Medullary Epithelial are cryopreserved as primary* cells; isolated from human kidney tissue and expanded in culture vessels once before cryopreservation.
• Renal Proximal Tubule Epithelial are cryopreserved as secondary* cells; isolated from human kidney tissue and expanded in culture vessels twice before cryopreservation.
• All Renal Epithelial Cell types can be grown in a 0.5% serum medium without phenol red or antimicrobials when cultured in RenaLife Medium.
• All Renal Epithelial Cell types 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 RENAL EPITHELIAL CELLS ARE TESTED FOR:	
• Cell Count	500,000 cryopreserved cells per vial
• Proliferation and Morphology	Normal cell appearance for 15 population doublings
• Cell Viability	Minimum 50% viability when thawed from

	cryopreservation
• Sterility	Negative for mycoplasma Negative for bacterial and fungal growth
• Virus	Negative for HIV-1, HIV-2, HBV, and HCV by PCR
• Specific Enzyme Test	Renal Proximal Tubule cells have gamma-glutamyl transferase activity

PRODUCT INFORMATION:	
Part #	**Description**
FC-0017	Mixed Renal Epithelial Cells - 500,000 cells per vial
FC-0012	Renal Cortical Epithelial Cells - 500,000 cells per vial
FC-0018	Renal Medullary Epithelial Cells - 500,000 cells per vial
FC-0013	Renal Proximal Tubule Epithelial Cells - 500,000 cells per vial
LL-0025	RenaLife™ Medium Complete Kit (RenaLife Basal Medium, RenaLife LifeFactors® Kit)

*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.

The Lifeline® Guarantee

Lifeline's rigorous quality control ensures sterility and performance to standardized testing criteria. 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. 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 and is not approved for human or veterinary use, or for use in *in vitro* diagnostic or in 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 vapor phase storage or -80°C for at least 24 hours prior to being thawed.

To place an order call Lifeline Technical Service and Sales at 877.845.7787 or visit lifelinecelltech.com for more information.

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Lifeline Cell Technology is an International Stem Cell company