Specification Sheet

HBTEC Air-Liquid Interface Differentiation Medium

LM-0050

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® CELL TECHNOLOGY | Better Solutions for Breakthrough Results

LM-0050

HBTEC Air-Liquid Interface Differentiation Medium

HBTEC Air-Liquid Interface Differentiation Medium is an optimized medium for air-liquid interface mucociliary differentiation of Human Bronchial/Tracheal Epithelial Cells (HBTEC).

HBTEC Air-Liquid Interface Differentiation Medium contains no antimicrobials and no phenol red. Antimicrobials are not required, but are recommended during differentiation due to the duration of culture and the frequency of handling of the cultures. Antimicrobials and phenol red may be purchase from Lifeline.

HBTEC Air-Liquid Interface Differentiation Medium Components

HBTEC Air-Liquid Interface Differentiation Medium is offered as a convenient and easy to use, fully-supplemented complete medium, stored frozen to extend shelf life.

Product	Part No.	Volume	Storage
HBTEC Air-Liquid Interface Differentiation Medium	LM-0050	500 mL	-20°C until ready to use. Thaw and store at 2-8°C for up to 1 month.
Components of HBTEC Air-Liquid Interface Differentiation Medium			**Final Concentration**
L-Glutamine			5 mM
rh EGF			0.5 ng/mL
Hydrocortisone Hemisuccinate			1 µg/mL
rh Insulin			5 µg/mL
(-)-Epinephrine-(+)-Bitartrate			1 µM
Transferrin PS			2.5 µg/mL
Apo-Transferrin			2.5 µg/mL
Triiodothyronine			10 nM
All-trans-Retinoic acid			30 ng/mL
Optional Supplements	**Part No.**	**Volume**	**Concentrations of Supplement**	**Storage**
Phenol Red Supplement	LS-1009	1 mL	33 mM	RT
Antimicrobial Supplement: Gentamicin and Amphotericin B *(Provided with purchase of LM-0050)*	LS-1104	0.5 mL	Gentamicin 30 mg/mL Amphotericin B 15 µg/mL	-20°C
Other Recommended Products		**Part No.**	**Unit**	**Storage**
Normal Human Bronchial/Tracheal Epithelial Cells (HBTEC)		FC-0035	500,000 cells/mL	-150°C
BronchiaLife™ B/T Medium Complete Kit		LL-0023	Kit	2-8°C when prepared

Quality Testing for Guaranteed Consistency and Reproducible Results

Lifeline Cell Technology manufactures products using the highest quality raw materials and incorporates ISO style quality assurance in every production run. Exacting standards and production procedures ensure lot-to-lot consistency.

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Call Lifeline Technical Service and Sales at 877.845.7787
Or visit lifelinecelltech.com for more information
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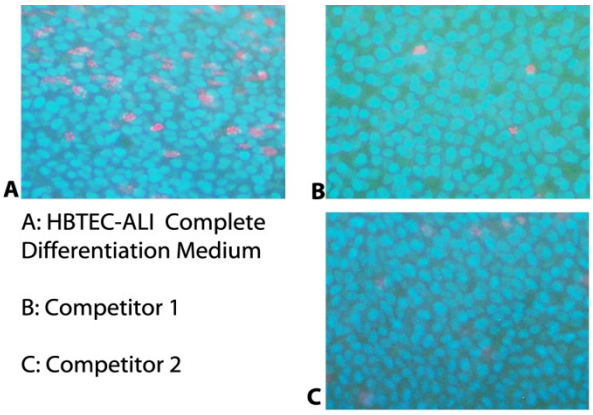
HBTEC Air-Liquid Interface Differentiation Medium and Gentamicin-Amphotericin B (LS-1104) are cell culture tested separately.

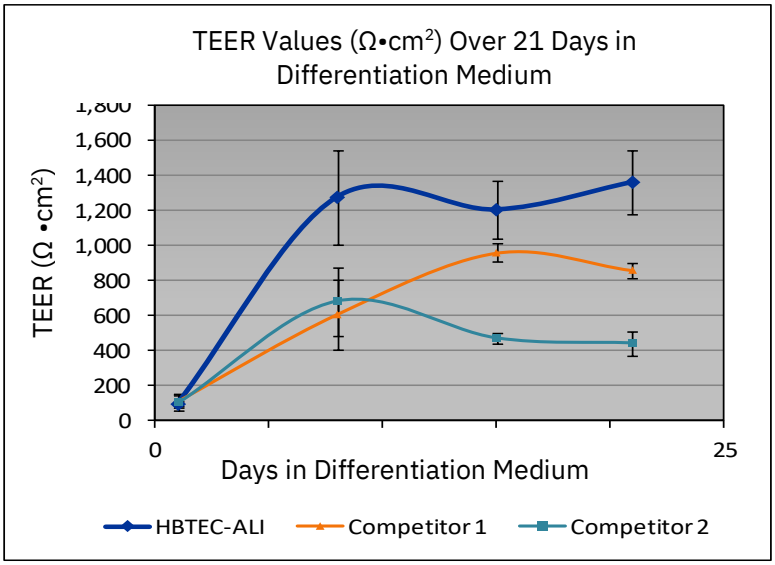
- Sterility Testing — Negative for bacterial and fungal growth
- pH — 7.5 +/- 0.3
- Cell Testing — Mucociliary differentiation
- Osmolality — 295 +/- 15 mOsm
- Endotoxin — < 5 EU/mL



A: HBTEC-ALI Complete Differentiation Medium

B: Competitor 1

C: Competitor 2



Shown top left: HBTEC Fixed on Day 21 of culture in HBTEC-ALI Complete Differentiation Medium supplemented with 0.1X PSA (LS-1011). Nuclei are stained with Hoechst 33342 (blue), cilia are stained with mouse monoclonal anti-beta tubulin IV clone [ONS.1A6] and with secondary antibody goat anti-mouse IgG conjugated with Texas Red.

Shown top right: Trans Epithelial Electrical Resistance (TEER) Values of HBTEC differentiated with HBTEC-ALI Differentiation Medium or two competitor media. HBTEC cells grown in HBTEC-ALI Differentiation Medium consistently had higher TEER values than cells grown in competitor media, indicating a higher number of tight junctions and better integrity of the monolayer.

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.

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