

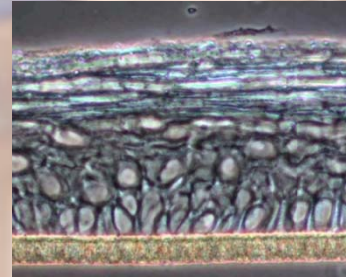
Specification Sheet

EST1000 (Epidermal Skin Test 1000)

Human Epidermis Equivalent

DESCRIPTION

Epidermal Skin Test **EST1000** is a three dimensional human epidermis equivalent, reconstructed from primary human epidermal keratinocytes from one neonatal donor. A submerge culture of the keratinocytes in inserts (0.6 cm²) with a polycarbonate membrane is followed by a culture at air-liquid interphase. This "airlift culture" in a chemically defined medium induces the differentiation, epithelial stratification and cornification.



14 d culture at air-liquid interphase
(phase contrast microscopy)

APPLICATIONS

In Vitro Toxicology

• Skin Corrosion:

EST1000 is an accepted *in vitro* assay model for skin corrosion testing. It is validated for the classification of compounds concerning skin corrosion according to the OECD Test Guideline 431 for the testing of chemicals: "In Vitro Skin Corrosion: Human Skin Model Test". The European Centre for the Validation of Alternative Methods (ECVAM) has accepted this method to be used for distinguishing between corrosive and non-corrosive chemicals. ECVAM has published the ESAC statement on the scientific validity of **EST1000** method to be used for reliably predicting the corrosive potential of chemical substances on their website (June, 12th, 2009, visit ECVAM homepage: <http://ecvam.jrc.it/> and look for Validated Methods and Publications / ESAC Statements).

• Skin Irritation:

EST1000 is suitable for identification and evaluation of hazards emanating from irritant compounds. It is in prevalidation phase and addresses the new UN-GHS classification. ECVAM acceptance for skin irritation testing is expected in the end of 2009.

• Phototoxicity

Phototoxicity testing with **EST1000** complements the phototoxicity test described in the OECD Test Guideline 432 (3T3 NRU-Assay) as a second tier.

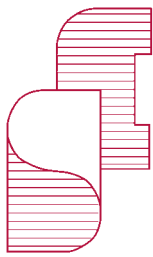
Skin Research

• **EST1000** is a robust epidermal skin model. It can be cultured for up to 3-4 weeks. This allows research in different phases of skin differentiation and maturation. Research applications include efficacy testing and skin barrier formation.

FEATURES

- Virus testing negative for HIV, HBV, HCV
- Mycoplasma testing not detected





CellSystems®

Biotechnologie Vertrieb GmbH

EST1000 KIT CONTENT

- 1 human skin model (0,6 cm²) in 24 well plate in transport medium
 - Maintenance medium (for 2 media changes)*
 - Assay medium (for MTT-assay)*
 - 6-well culture plate*
 - Lot release documentation
- * volume no. depends on no. of skin models

EST1000 KIT FOR REGULATORY TOXICOLOGY

- Culture at air-liquid interphase (airlift culture): 14 days

EST1000 FOR RESEARCH APPLICATIONS (UPON REQUEST)

- In different maturation stages (i.e. airlift culture 7 or 11 days)
- Produced under custom specific conditions (i.e. w/o hydrocortisone, w/o antibiotics)
- Custom specific features are possible, please contact us

RELATED PRODUCTS

- Maintenance medium (50 ml) (Ref. CS-1050)
- MTT-assay medium (50 ml) (Ref. CS-1060)
- Nylon Meshes, sterile (12 + 2) (for skin irritation testing, to improve contact of chemicals with skin model) (Ref. CS-1150)
- EST1000 Skin Corrosion Validation Kit (Ref. CS-1036VC)
- EST1000 Skin Irritation Validation Kit (Ref. CS-1018VI)
- AST2000 (Advanced Skin Test 2000) human full thickness skin model (Ref. CS-2001)

VALIDATION KIT

CellSystems® offers the services "Skin Corrosion Validation Kit" and "Skin Irritation Validation Kit" to confirm interlaboratory reproducibility and to gain reliable results in your laboratory. The corrosive / irritative potential of blinded test substances is determined in parallel at your facility and at CellSystems®. After successful performing this validation assay you will be certified.

USAGE

For research use only – not approved for human or veterinary use or for diagnostic or clinical procedures.



Epidermal Skin Test is now available in the United States exclusively through Lifeline Cell Technology. For more information, or to place a U.S. order, please call **1.877.845.7787** or email info@lifelinecelltech.com

