

EPISKIN

L'ORÉAL RESEARCH & INNOVATION

India Distributor

KRISHGEN BioSystems

OUR REAGENTS, YOUR RESEARCH

EPISKIN

World leader in tissue engineering

FOR *IN VITRO* TESTING



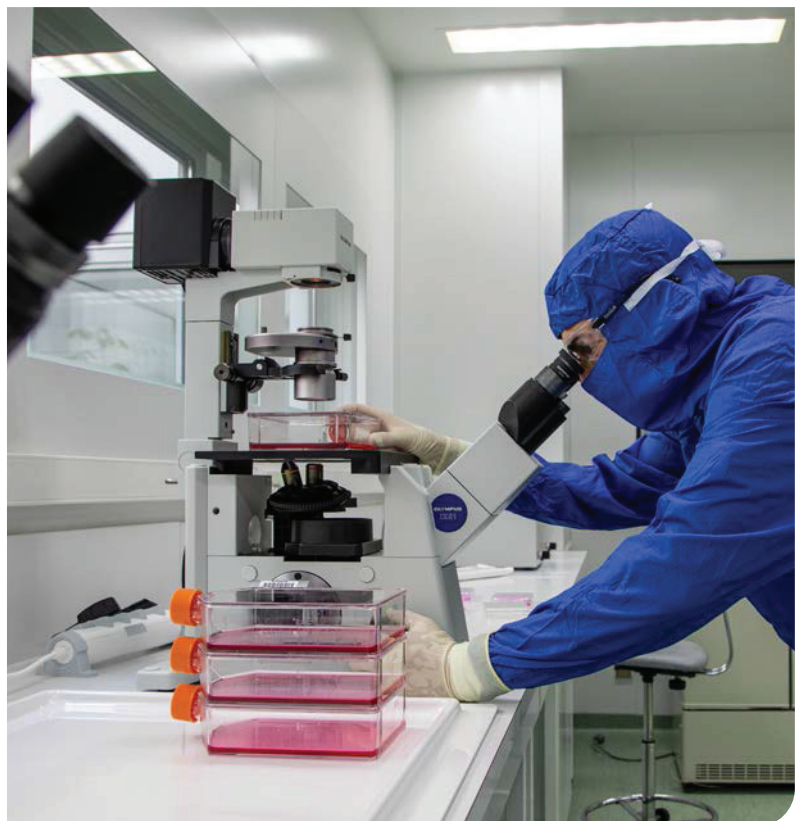
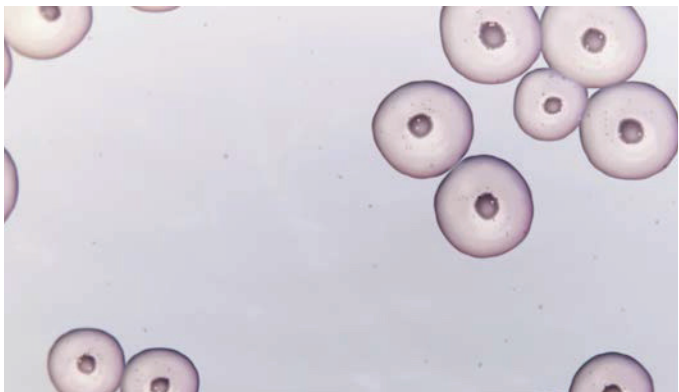
APPLICATIONS

MODELS
T-SKIN
SkinEthic RHE
SkinEthic RHE-LC
SkinEthic RHPE
SkinEthic HCE
SkinEthic HGE
SkinEthic HOE
SkinEthic HO2E
SkinEthic HBE
SkinEthic HVE

	T-SKIN	SkinEthic RHE	SkinEthic RHE-LC	SkinEthic RHPE	SkinEthic HCE	SkinEthic HGE	SkinEthic HOE	SkinEthic HO2E	SkinEthic HBE	SkinEthic HVE
Skin irritation		●								
Skin corrosion		●	●							
UV exposure	●	●	●	●						
Bacterial adhesion	●	●	●		●	●	●	●	●	●
DNA Damage	●	●	●							
Omics	●	●	●	●	●	●	●	●	●	●
Permeability	●	●	●							
Eye irritation					●					
Medical Devices		●								
Microbiome		●								
Skin immune response			●	●						
Pigmentation/Depigmentation										
Oral & Gingival care						●	●			
Oesophageal Irritation								●		
Bladder irritation									●	
Vaginal irritation										●

SUMMARY

T-SKIN™ / Reconstructed Full-Thickness Model	5
SkinEthic™ RHE / Reconstructed Human Epidermis	7
SkinEthic™ RHE-LC / Human Epidermal Model Langerhans Cells	9
SkinEthic™ RHPE / Reconstructed Human Pigmented Epidermis	11
SkinEthic™ HCE / Human Corneal Epithelium	13
SkinEthic™ HOE / Human Oral Epithelium	15
SkinEthic™ HGE / Human Gingival Epithelium	17
SkinEthic™ HO2E / Human Oesophageal Epithelium	19
SkinEthic™ HBE / Human Bladder Epithelium	21
SkinEthic™ HVE / Human Vaginal Epithelium	23



EPISKIN: your reliable and trustworthy partner for your benefits

We innovate

since 1992 for a better science in producing advanced, relevant and robust in vitro 3D models allowing our users to predict human response. Very strict and unique quality controls help us to supply unmatched quality models. Our innovation, your science.

Innovation

Expertise

We dedicate

all our expertise, strengths and skills to be the world leader in tissue engineering for in vitro testing and research. No compromise. Our one and only core business is supplying advanced and relevant tissues to the scientific community and partnering with added value testing laboratories. Our commitment, your satisfaction.

Worldwide

We deliver

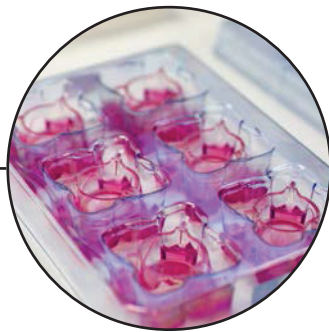
worldwide, serving all customers with our 3 partners in India, Korea and Japan and with our 2 subsidiaries in Brazil and China and our headquarters in France. You order, we deliver.

ADVANCED 3D MODELS FOR A BETTER,
MORE PREDICTIVE AND MORE ETHICAL SCIENCE


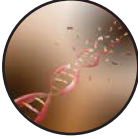


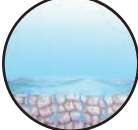
Reconstructed Human Full Thickness Model

FORMAT

6-well plate

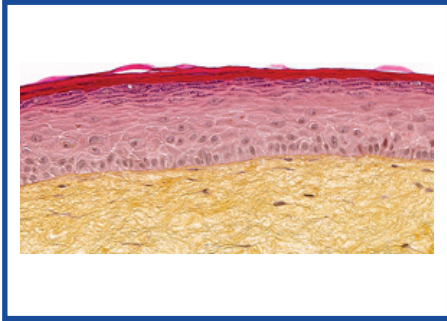


APPLICATIONS

-  UV Exposure / Phototoxicity / Photoprotection
-  DNA Damage
-  Bacterial adhesion
-  Omics
-  Permeability



Reconstructed Human Full Thickness Model



NAME

T-Skin™ / Reconstructed Human Full Thickness Skin Model

DESCRIPTION

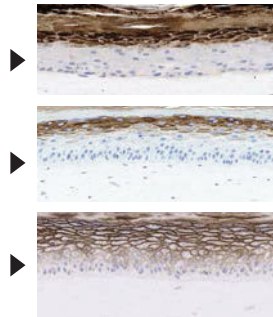
T-Skin™ is an in vitro reconstructed skin which consists of a dermal equivalent with human fibroblasts overlaid by a stratified, well differentiated epidermis derived from normal human keratinocytes cultured on an inert polycarbonate filter.

This model exists at different stages of maturity.

SPECIFIC MARKERS

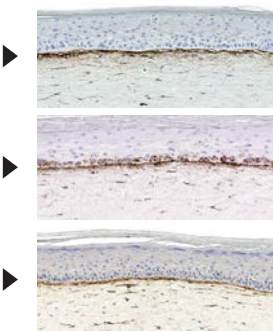
Differentiation markers:

- ▶ Filaggrin
- ▶ Involucrin
- ▶ Loricrin
- ▶ Cytokeratin 10
- ▶ Transglutaminase-1



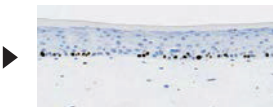
Dermal-Epidermal junction markers

- ▶ Collagen IV, VII, XII
- ▶ Laminin V
- ▶ Perlecan
- ▶ BP antigen



Proliferation markers

- ▶ Ki67



REFERENCES

Characterization of a New Reconstructed Full Thickness Skin Model, T-Skin™, and its Application for Investigations of Anti-Aging Compounds.

Bataillon M, Lelièvre D, Chapuis A, Thillou F, Autourde JB, Durand S, Boyera N, Rigaudeau AS, Besné I, Pellevoisin C. Int J Mol Sci. 2019 May 7;20(9):2240. doi: 10.3390/ijms20092240.

Characterization of a New Reconstructed Full Thickness Skin Model T-Skin.

Autourde JB, Bataillon M, Besné I, Boyera N, Chapuis A, Durand S, Lelièvre D, Pellevoisin C, Rigaudeau AS, Thillou F. International Journal of Molecular Sciences.

Reconstructed skin to create in vitro flexible models of skin aging: new results and prospects.

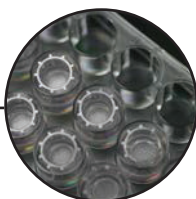
Asselineau D, Ricois S, Pageon H, Zucchi H, Girardeau-Hubert S, Deneuille C, Haydont V, Neiveyans V, Lorthois I, In Farage MA, Miller W, Maibach H, editors. Springer Berlin Heidelberg Textbook of Aging Skin p 1203-1228.

In vitro and in vivo studies with tetrahydrojasmonic acid (LR2412) reveal its potential to correct signs of skin ageing.
Tran C, Michelet JF, Simonetti L, Fiat F, Garrigues A, Potter A, Segot E, Watson REB, Griffiths CEM, de Lacharrière O. JEADV, 28, 415-423.

Reconstructed Human Epidermis

FORMAT

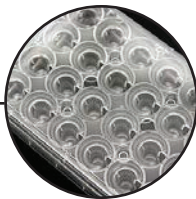
0.5 cm²



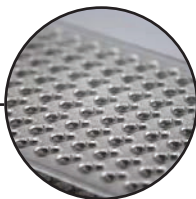
4 cm²



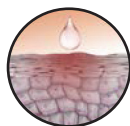
HTS 24-well plate
0.33 cm²



HTS 96-well plate
0.11 cm²



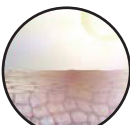
APPLICATIONS



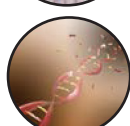
Skin irritation



Skin corrosion



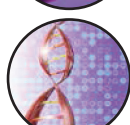
UV Exposure / Phototoxicity /
Photoprotection



DNA Damage



Bacterial adhesion



Omics



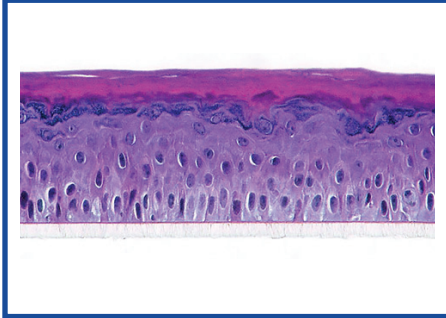
Permeability



Medical Device



Reconstructed Human Epidermis



NAME

SkinEthic™ RHE / Reconstructed Human Epidermis

DESCRIPTION

SkinEthic™ RHE is an *in vitro* reconstructed human epidermis from normal human keratinocytes cultured on an inert polycarbonate filter at the air-liquid interface. It is histologically similar to the *in vivo* human epidermis.

Our strong believe in Science and our continuous improvement with ISO 9001 certification push us to keep improving the production process of our model: From cell extraction to reconstruction with chemically defined biocomponents and **medium**.

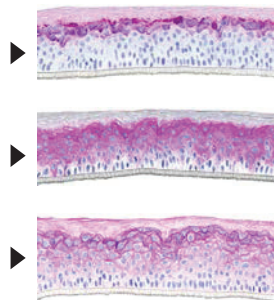
Every single biocomponent of each step of our production is clearly defined and their traceability is guaranteed. The process is then more secured, allowing to deliver a SkinEthic™ RHE model more reproducible, robust and reliable than ever.

Different maturities and surfaces are available.

SPECIFIC MARKERS

Differentiation markers:

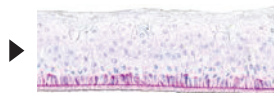
- ▶ Filaggrin
- ▶ Involucrin
- ▶ Loricrin
- ▶ Transglutaminase-1
- ▶ Keratin 10
- ▶ Keratin 5
- ▶ CD44



Presence of different epidermal classes of lipids comprising ceramides

Dermal-Epidermal junction markers

- ▶ Type IV collagen
- ▶ Laminin V
- ▶ Alpha6Beta4-integrin
- ▶ BP antigen



Proliferation markers

- ▶ Ki67

REFERENCES

Pre-validation of SENS-IS assay for *in vitro* skin sensitization of medical devices.
Pellevoisin C, Cottrez F, Johansson J, Pedersen E, Coleman K, Groux H. Toxicology In Vitro (in review)

SkinEthic™ RHE for *in vitro* evaluation of skin irritation of medical device extracts.
Pellevoisin C, Videau C, Briotet D, Grégoire C, Tornier C, Alonso A, Rigau deau AS, Bouez C, Seyler N. Toxicol In Vitro. 2018 Aug;50:418-425. Doi: 10.1016/j.tiv.2018.01.008. Epub.

In vitro patch test using non-invasive endpoints.
De Brugerolle de Fraissinette A, Rosdy M, Tornier C. SOT.

A catch-up validation study on reconstructed human epidermis (SkinEthic RHE) for full replacement of the Draize skin irritation test.
Alépée N, Tornier C, Robert C, Amsellem C, Roux MH, Doucet O, Pachot J, Méloni M, de Brugerolle de Fraissinette A. Toxicol In Vitro. 2010. Feb;24(1):257-66. doi: 10.1016/j.tiv.2009.08.024. Epub.

Malassezia colonisation on a reconstructed human epidermis: Imaging studies.
Pedrosa AF, Lisboa C, Branco J, Almeida AC, Mendes C, Pellevoisin C, Leite-Moreira A, Miranda IM, Rodrigues AG. Mycoses. 2019 Dec;62(12):1194-1201. doi: 10.1111/myc.13011. Epub.

Preliminary performance data of the RHE/IL-18 assay performed on SkinEthic™ RHE for the identification of contact sensitizers.
Andres E, Barry M, Hundt A, Dini C, Corsini E, Gibbs S, Roggen EL, Ferret PJ. Int J Cosmet Sci. 2017 Apr;39(2):121-132. doi: 10.1111/ics.12355. Epub.

Cell Migration Model

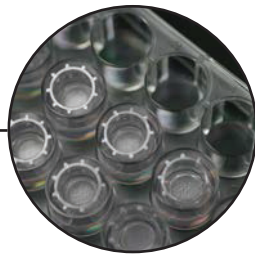


are epidermal models on an innovative insert. Epidermal or mucosal reconstructed on this insert are histologically similar to *in vivo* human epidermis and mucosa.

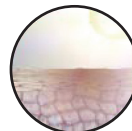
Reconstructed Human Epidermis with Langerhans Cells

FORMAT

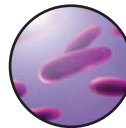
0.5 cm²



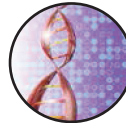
APPLICATIONS



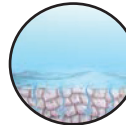
UV Exposure / Phototoxicity /
Photoprotection



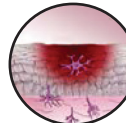
Bacterial adhesion



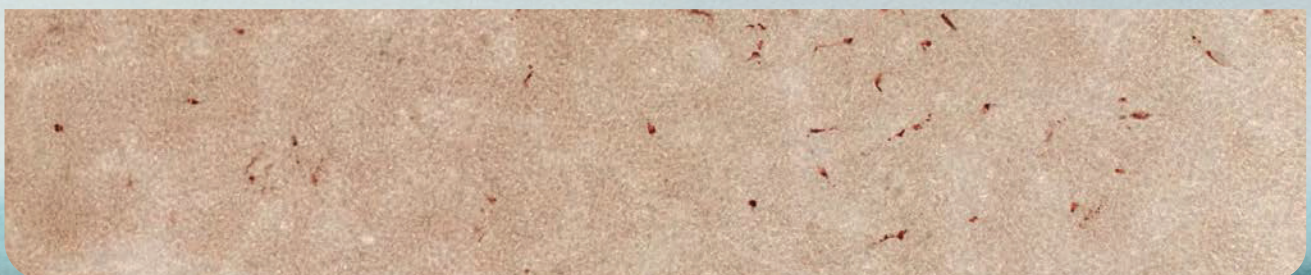
Omics



Permeability



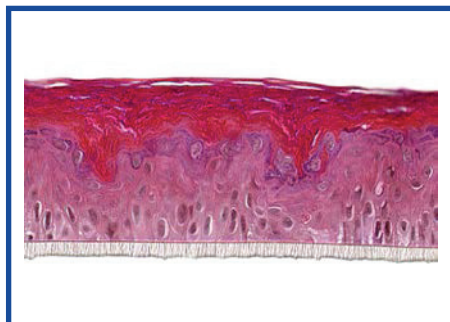
Skin immune response



RHE-LC

SkinEthic

Reconstructed Human Epidermis with Langerhans Cells



NAME

SkinEthic™ RHE-LC / Human Epidermal Model Langerhans Cells

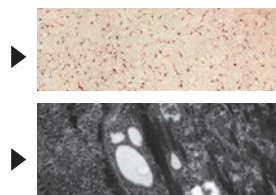
DESCRIPTION

The SkinEthic™ RHE-LC model is a standard epidermal model in which Langerhans cells progenitors have been integrated. During the tissue reconstruction, these immature cells have differentiated into antigen-presenting Langerhans cells expressing the specific marker CD207 (langerin). They are mostly located and evenly spread within the supra-basal epidermal layer. This model is therefore expected to be a useful tool for skin immune response studies.

SPECIFIC MARKERS

Langerhans cells markers:

- ▶ CD207 Langerin
- ▶ Birbeck granules
- CD1
- CD80
- CD86
- CCR7



Differentiation markers:

- Filaggrin
- Involucrin
- Loricrin
- Keratin 10
- Keratin 5

Presence of different epidermal classes of lipids comprising ceramides

Dermal-Epidermal junction markers

- Type IV collagen
- ▶ Laminin V
- Alpha6Beta4-integrin
- BP antigen

Proliferation markers

- Ki67

REFERENCES

Adding the immune component in reconstructed human skin and eye epithelia models.

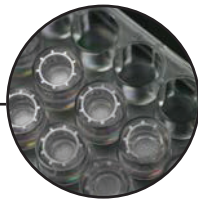
Ancelin N, Benas D, Brusq JM, Douillard G, Ligouis M, Meloni M, Mondoulet L, Ovigne JM, Pellevoisin C, Rigaudeau AS, Sahuc F, Segaud V.
Poster Asiatox

Cellular mechanistic investigation on antigen delivery by Viaskin® patch for epicutaneous immunotherapy with reconstructed human epidermis including Langerhans cells (SkinEthic™ RHE-LC).
Dhelf V, Dioszeghy V, Ligouis M, Mondoulet L, Pellevoisin C, Sahuc F.
Poster

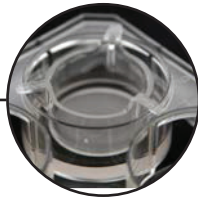
Reconstructed Human Pigmented Epidermis

FORMAT

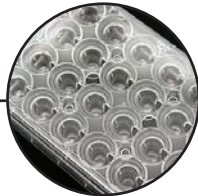
0.5 cm²



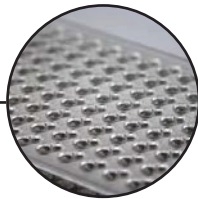
4 cm²



HTS 24-well plate
0.33 cm²



HTS 96-well plate
0.11 cm²



APPLICATIONS



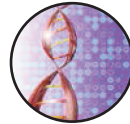
Pigmentation



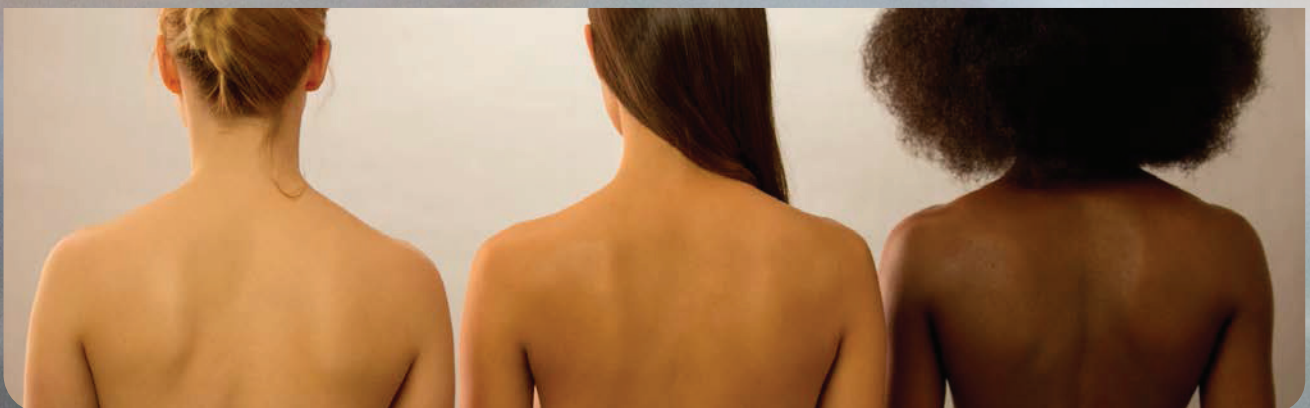
Depigmentation



UV Exposure / Phototoxicity /
Photoprotection



Omics



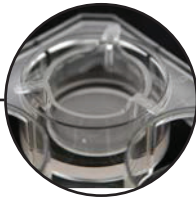
Reconstructed Human Pigmented Epidermis

FORMAT

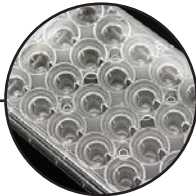
0.5 cm²



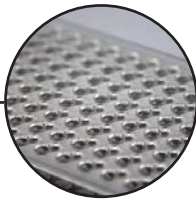
4 cm²



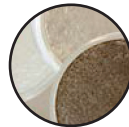
HTS 24-well plate
0.33 cm²



HTS 96-well plate
0.11 cm²



APPLICATIONS



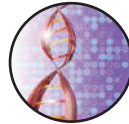
Pigmentation



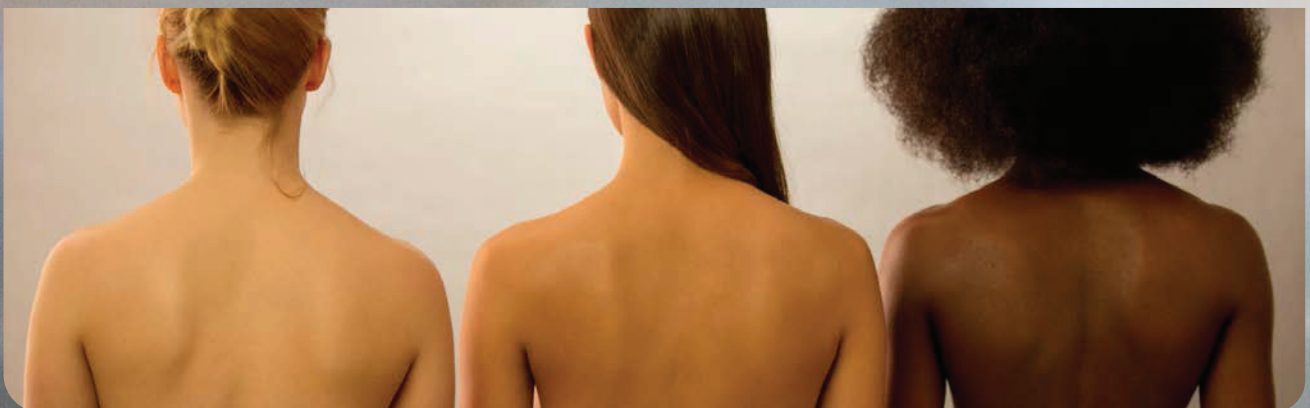
Depigmentation



UV Exposure / Phototoxicity /
Photoprotection

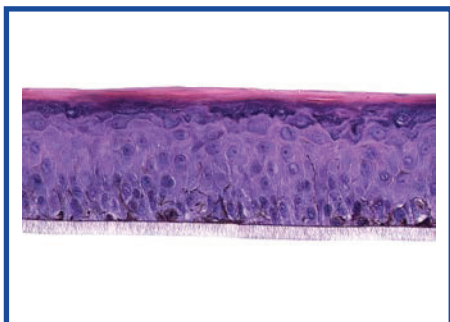


Omics



RHPE
SkinEthic

Reconstructed Human Pigmented Epidermis



NAME

SkinEthic™ RHPE / Reconstructed Human Pigmented Epidermis

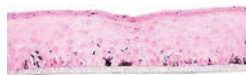
DESCRIPTION

The SkinEthic™ RHPE model is composed of normal human keratinocytes cultivated in the presence of melanocytes of phototype II, IV or VI, localized in the basal layer.

The different tanning degrees of these constructs correspond macroscopically to 3 different phototypes of human skin.

SPECIFIC MARKERS

Melanocytes localized in the basal cell layer interspersed with basal cell keratinocytes.



Melanin distribution in the basal layer



Ki 67

REFERENCES

Skin lightening effect of natural extracts coming from Senegal botanical biodiversity. *Baillet-Guffroy A, El Khoury R, Lteif R, Michael-Jubeli R, Salameh D, Tfayli A, Zeitoun H. International Journal of Dermatology.*

Reconstructed Human Pigmented Epidermis (RHPE): an in vitro model for the evaluation of melanogenesis. *Sahuc F. SOFW Magazine.*

Sepicalm VG, a new skin lightening enable to modulate melanogenesis-related genes and to prevent UV-induced pigmentation thanks to its soothing properties. *Dumont S, Khaiat A, Puginier M, Stoltz C, Garcia C. SEPPIC*

Melanocyte containing human organotypic epidermis as a model to evaluate toxicity of melanin binding substances. *Straube F, Junker U, Kretz S, Wolf A. Society of Toxicology, USA.*



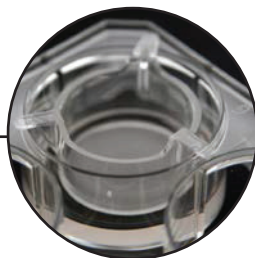
Human Corneal Epithelium

FORMAT

0.5 cm²



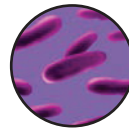
4 cm²



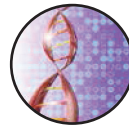
APPLICATIONS



Ocular Irritation



Bacterial Adhesion



Omics

- ▶ Eye Irritation Test (EIT) Method validated by EURL-ECVAM and under OECD TG 492 for identification of chemicals not requiring classification for eye hazard (UN GHS)
- ▶ EIT implemented in the draft OECD GD for serious damage and eye irritation
- ▶ Corneal differential display i.e. mucin production



Human Corneal Epithelium



NAME

SkinEthic™ HCE / Human Corneal Epithelium

DESCRIPTION

The SkinEthic™ HCE model is composed of transformed human corneal keratinocytes cultivated on an inert polycarbonate filter at the air liquid interface in a chemically defined medium.

The reconstructed tissue forms a stratified and well organized epithelium which is structurally, morphologically and functionally similar to the human cornea with presence of basal, wing and mucus production cells.

SPECIFIC MARKERS

Differentiation markers:

- ▶ Keratin
- ▶ CD44
- ▶ Hemidesmosomes



REFERENCES

Eye Irritation Potential of Microglycine and Microglycine-Containing Ointments: An in vitro Study on Reconstructed Human Corneal Epithelium.
Balzaretti S, Barone S, Ceriotti L, Meloni M. Clinical Ophthalmology.

Multi-laboratory evaluation of SkinEthic HCE test method for testing serious eye damage/eye irritation using solid chemicals and overall performance of the test method with regard to solid and liquid chemicals testing.
Alépée N, Adriaens E, Grandidier MH, Meloni M, Nardelli L, Vinall CJ, Toner F, Roper CS, Van Rompay AR, Leblanc V, Cotovio J. Toxicology In Vitro 34, 55-70.

In vitro assessment of eye irritancy using the Reconstructed Human Corneal Epithelial SkinEthic™ HCE model: Application to 435 substances from consumer products industry.
Cotovio J et al. Toxicology In Vitro, 24, 523-537.

Are coffee silverskin extracts safe for topical use? An in vitro and in vivo approach.
Alves RC, Beatriz M, Ferreira M, Helena Amaral M, Oliveira PP, Pereira C, Pimentel FB, Rodrigues F, Sarmento B. Elsevier.

Cell Migration Model



are epidermal models on an innovative insert. Epidermal or mucosal reconstructed on this insert are histologically similar to in vivo human epidermis and mucosa.



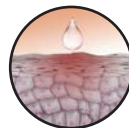
Human Gingival Epithelium

FORMAT

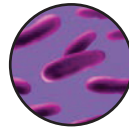
0.5 cm²



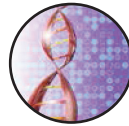
APPLICATIONS



Oral Care



Bacterial Adhesion

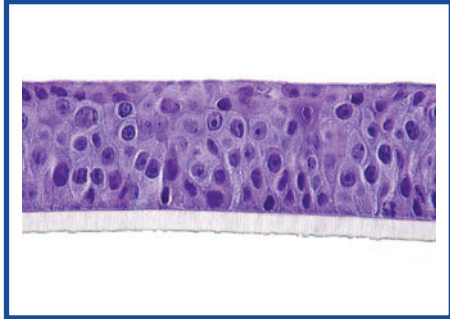


Omics





Human Oral Epithelium



NAME

SkinEthic™ HOE / Human Oral Epithelium

DESCRIPTION

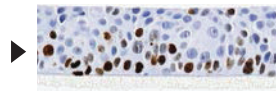
The SkinEthic™ HOE model is composed of TR146 cells (derived from a squamous cell carcinoma of the buccal mucosa) cultivated on an inert polycarbonate filter at the air liquid interface in a chemically defined medium.

This model forms an epithelial tissue devoid of stratum corneum, resembling histologically to the mucosa of the oral cavity.

SPECIFIC MARKERS

Differentiation markers:

- ▶ Keratin 6
- ▶ Keratin 16
- ▶ CD44
- ▶ Ki67



REFERENCES

Evaluation of an oral care product safety screening program utilizing the in vitro SkinEthic Human Gingival Epithelium (RHG) and Oral Buccal (RHO) models.

Wurzburger L, Kazmi P, Re T, Alonso A, Bertino B, Barnes N, de Brugerolle de Fraissinette A, Hilberer A, Raabe H, Wilt N, Srinivasan V. SOT.

A Biphasic Innate Immune MAPK Response Discriminates between the Yeast and Hyphal Forms of *Candida albicans* in Epithelial Cells.

Moyes DL et al. Cell Host & Microbe, 8, 225-235.

Quantitative expression of the *Candida albicans* secreted aspartyl proteinase gene family in human oral and vaginal candidiasis.

Naglik JR et al. Microbiology, 154, 3266-3280.

Phenotypic screening, transcriptional profiling, and comparative genomic analysis of an invasive and non-invasive strain of *Candida albicans*.

Thewes S, Moran GP, Magee BB, Schaller M, Sullivan DJ, Hube B. BMC Microbiol. 24;8:187.

Human Oesophageal Epithelium

FORMAT

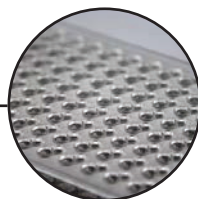
0.5 cm²



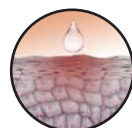
HTS 24-well plate
0.33 cm²



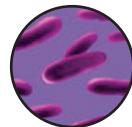
HTS 96-well plate
0.11 cm²



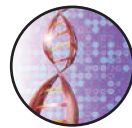
APPLICATIONS



Oesophageal Irritation



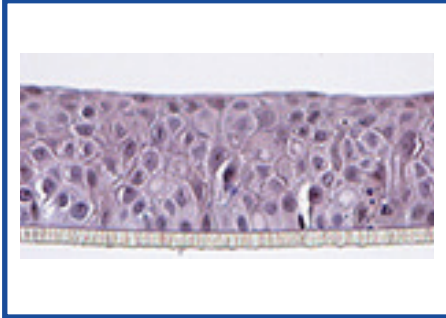
Bacterial Adhesion



Omics

HO2E
SkinEthic

Human Oesophageal Epithelium



NAME

SkinEthic™ HO2E / Human Oesophageal Epithelium

DESCRIPTION

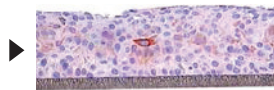
The SkinEthic™ HO2E model is a human oesophageal epithelium composed of immortalized cell line Kyse 510, cultivated on an inert polycarbonate filter at the air liquid interface in a chemically defined medium.

This model forms an epithelial tissue devoid of stratum corneum, resembling histologically to the outer cell layers of the human oesophagus.

SPECIFIC MARKERS

Differentiation markers:

- ▶ Keratin 6
- ▶ Keratin 13



REFERENCES

Influence of voriconazole and fluconazole on reconstituted multilayered oesophageal epithelium infected by *Candida albicans*.
J.Bernhardt, H.Bernhardt, M.Knoke, K.Ludwig. Mycoses, 47, 7, p.330, October 2004.

Evaluation of Human Esophageal Epithelium Permeability in Presence of Different Formulations Containing Hyaluronic Acid and Chondroitin Sulphate.
Gaia Pellegatta, Marco Spadaccini, Laura Lamonaca, Vincenzo Craviotto, Ferdinando D'Amico, Laura Ceriotti, Marisa Meloni, Alessandro Repici. Medical Devices: Evidence and Research 2020.

In Vitro Modelling of Barrier Impairment Associated with Gastro-Oesophageal Reflux Disease (GERD).
Marisa Meloni, Paolo Buratti, Francesco Carriero, Laura Ceriotti. Clinical and Experimental Gastroenterology 2021.

Protective Mechanisms of Liquid Formulations for Gastro-Oesophageal Reflux Disease in a Human Reconstructed Oesophageal Epithelium Model.
Laura Ceriotti, Paolo Buratti, Enrico Stefano Corazziari, Marisa Meloni. 2022.

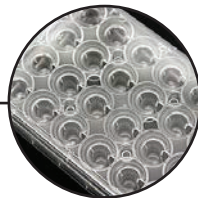
Human Oesophageal Epithelium

FORMAT

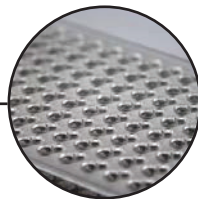
0.5 cm²



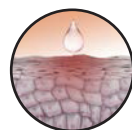
HTS 24-well plate
0.33 cm²



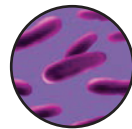
HTS 96-well plate
0.11 cm²



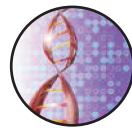
APPLICATIONS



Oesophageal Irritation



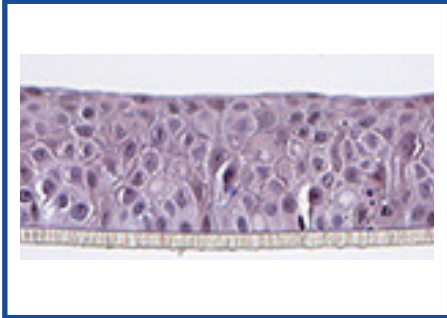
Bacterial Adhesion



Omics

HO2E
SkinEthic

Human Oesophageal Epithelium



NAME

SkinEthic™ HO2E / Human Oesophageal Epithelium

DESCRIPTION

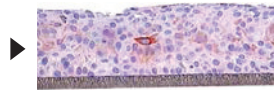
The SkinEthic™ HO2E model is a human oesophageal epithelium composed of immortalized cell line Kyse 510, cultivated on an inert polycarbonate filter at the air liquid interface in a chemically defined medium.

This model forms an epithelial tissue devoid of stratum corneum, resembling histologically to the outer cell layers of the human oesophagus.

SPECIFIC MARKERS

Differentiation markers:

- ▶ Keratin 6
- ▶ Keratin 13



REFERENCES

Influence of voriconazole and fluconazole on reconstituted multilayered oesophageal epithelium infected by *Candida albicans*.
J. Bernhardt, H. Bernhardt, M. Knoke, K. Ludwig. Mycoses, 47, 7, p.330, October 2004.

Evaluation of Human Esophageal Epithelium Permeability in Presence of Different Formulations Containing Hyaluronic Acid and Chondroitin Sulphate.
Gaia Pellegatta, Marco Spadaccini, Laura Lamonaca, Vincenzo Craviotto, Ferdinando D'Amico, Laura Ceriotti, Marisa Meloni, Alessandro Repici. Medical Devices: Evidence and Research 2020.

In Vitro Modelling of Barrier Impairment Associated with Gastro-Oesophageal Reflux Disease (GERD).
Marisa Meloni, Paolo Buratti, Francesco Carriero, Laura Ceriotti. Clinical and Experimental Gastroenterology 2021.

Protective Mechanisms of Liquid Formulations for Gastro-Oesophageal Reflux Disease in a Human Reconstructed Oesophageal Epithelium Model.
Laura Ceriotti, Paolo Buratti, Enrico Stefano Corazziari, Marisa Meloni. 2022.

Human Bladder Epithelium

FORMAT

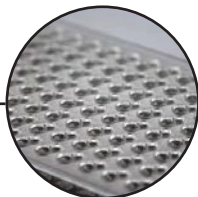
0.5 cm²



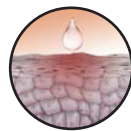
HTS 24-well plate
0.33 cm²



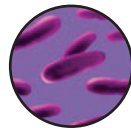
HTS 96-well plate
0.11 cm²



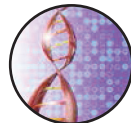
APPLICATIONS



Bladder Irritation



Bacterial Adhesion / Infection



Omics

HBE
SkinEthic

Human Bladder Epithelium



NAME

SkinEthic™ HBE / Human Bladder Epithelium

DESCRIPTION

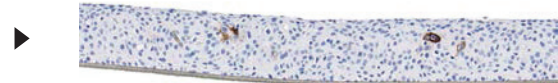
The SkinEthic™ HBE model is a human bladder epithelium composed of immortalized cell line RT-112 (urinary bladder transitional cell carcinoma), cultivated on an inert polycarbonate filter at the air liquid interface in a chemically defined medium.

This model forms an epithelial tissue devoid of stratum corneum, resembling histologically to the outer cell layers of the human bladder.

SPECIFIC MARKERS

Differentiation markers:

- ▶ Keratin 17
- ▶ Keratin 20
- ▶ CD44



Human Vaginal Epithelium

FORMAT

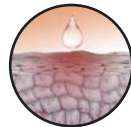
0.5 cm²



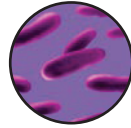
HTS 24-well plate
0.33 cm²



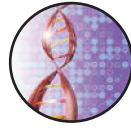
APPLICATIONS



Vaginal Irritation



Bacterial Adhesion



Omics



HVE
SkinEthic

Human Vaginal Epithelium



NAME

SkinEthic™ HVE / Human Vaginal Epithelium

DESCRIPTION

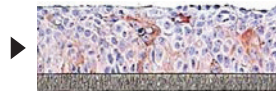
The SkinEthic™ HVE model is composed of A431 cells (derived from a vulval epidermoid carcinoma) cultivated on an inert polycarbonate filter at the air liquid interface in a chemically defined medium.

This model is histologically similar to the *in vivo* vaginal mucosa.

SPECIFIC MARKERS

Differentiation markers:

- ▶ Keratin
- ▶ Involucrin



REFERENCES

Integrated in vitro vaginal safety approach for bath and body wash products utilizing SkinEthic Human Vaginal Epithelium (HVE) model.

Vinayak S, Alonso A, Bertino B, Costin GE, de Brugerolle de Fraissinette A, Orak D, Inglis H, Kazmi P, Raabe H, Re T. SOT.

Quantitative expression of the *Candida albicans* secreted aspartyl proteinase gene family in human oral and vaginal candidiasis.

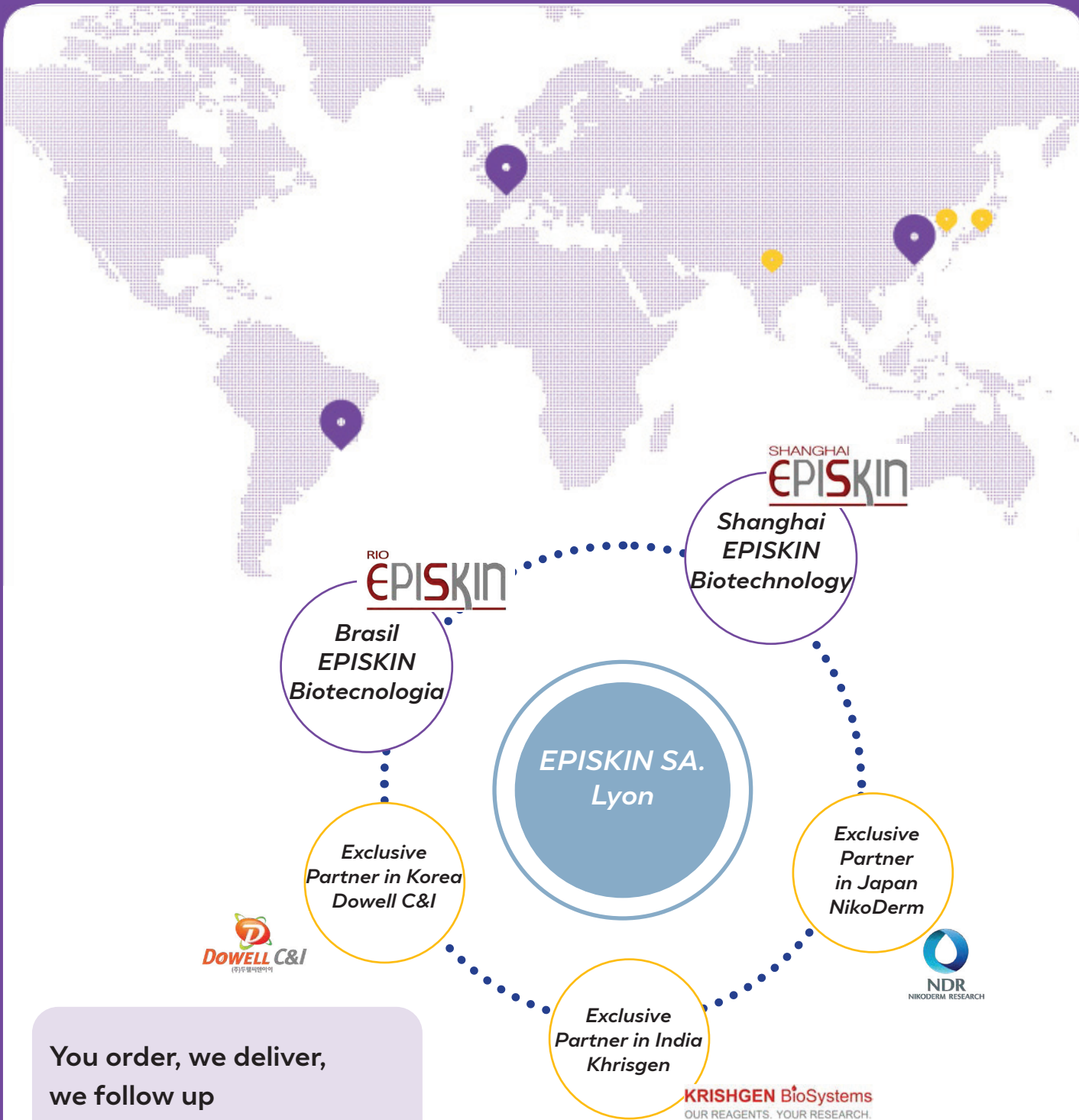
Naglik JR et al. Microbiology, 154, 3266-3280.

Candida albicans-secreted aspartic proteinases (Sap) modify the epithelial cytokine response in an in vitro model of vaginal candidiasis.

Schaller M, Kortling HC, Borelli C, Hamm G, Hube B. Infect Immun 73 (5): 2758-2765.

The secreted aspartyl proteinases *sap1* and *sap2* cause tissue damage in an in vitro model using vaginal candidiasis using reconstituted human vaginal epithelium.

Schaller M, Bein M, Kortling HC, Baur S, Hamm G, Monod M, Beinhauer S and Hube B. Infection and Immunology, 71, 6, 3227-3234.



You order, we deliver, we follow up

Prior to your order our teams of experts are dedicated to help you in choosing the right model(s) and sharing the most accurate protocol(s). We take care of the logistics for an on time delivery by selecting the more efficient carrier and validating the route when necessary. Upon reception and further we are reachable real time for any question. ANYTIME, ANYWHERE

Contact us

www.episkin.com
Episkin - 4, rue Alexander Fleming
69366 - LYON Cedex 7 - France
+33 4 37 28 22 00

KRISHGEN BioSystems

OUR REAGENTS, YOUR RESEARCH



www.krishgenbio.com



**Krishgen Biosystems
India**

EPISKIN

**EPISKIN: your reliable
and trustworthy partner
for your benefits**

Tel: (022) - 4919198700 | Email: sales1@krishgen.com | www.krishgenbio.com