

Animal testing for cosmetics is banned in the EU under Regulation 1223/2009. PKDERM substantiates your claims on human skin and human cells, with endpoints your regulatory and marketing files can both use.

SERVICES

Anti-aging

Collagen I and III, elastin, extracellular matrix remodelling (MMPs), cellular senescence (SA- β -gal)

Hydration and barrier

HAS2 and hyaluronic acid · FLG, IVL, LOR · TEWL and TEER · Lucifer Yellow penetration by fluorescence microscopy and image analysis

Pigmentation

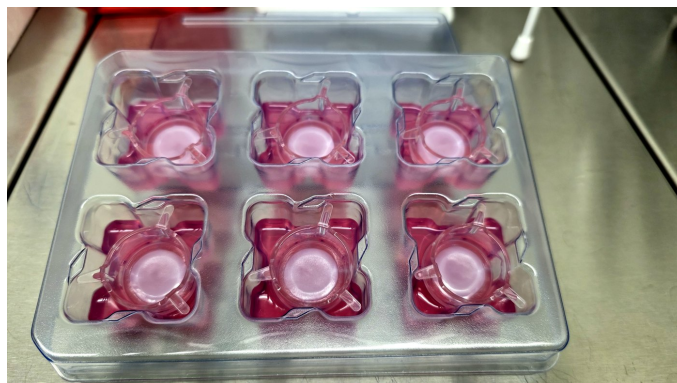
Melanin content, melanogenesis markers, instrumental colour measurement (ITA°)

Soothing and repair

Cytokine release, wound healing and re-epithelialisation, sensitive and damaged skin

Safety

Skin and eye irritation, cytotoxicity. Sensitisation, phototoxicity and genotoxicity with qualified partners.



Reconstructed tissue models in culture inserts.

BIOLOGICAL MODELS

Reconstructed

3D epidermis, full-thickness T-Skin, MelanoDerm pigmented epidermis, EpiVaginal mucosa

Ex vivo

Excised human skin explants, intact or barrier-impaired

2D cells

Primary keratinocytes, fibroblasts and melanocytes

WHOLE-TRANSCRIPTOME RNA-Seq

With our partner GENXMAP, RNA-Seq takes you from a handful of pre-selected markers to the entire transcriptome — mechanism of action, off-target effects and new claims from a single experiment.

READOUTS AND TECHNIQUES

Molecular

RT-qPCR · whole-transcriptome RNA-Seq

Imaging

Histology · immunofluorescence · IHC · live-cell imaging

Quantification

ELISA and multiplex · image analysis

WHY PKDERM

Animal-free by design. More than 20 years of expertise in dermo-cosmetic testing, and over 30 peer-reviewed publications. Holder of European patent EP-3922714 on the use of a 3D reconstructed human skin model. Atopic dermatitis and psoriasis can be induced on the models, with paired untreated controls, when a claim concerns compromised skin.