

Lecture: skin models as alternatives to animal testing

SkinEthic Laboratories, a validated choice of *in vitro* alternative methods to the animal use for skin corrosion and irritation and other selected choices for eye irritation and skin pigmentation

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SkinEthic is devoted to develop and produce reliable and robust *in vitro* alternative methods to the animal use and to streamline the clinical trials in cosmetic, chemical and pharmaceutical industries. SkinEthic models provide relevant tools for efficacy and safety screening tests in order to support an integrated decision making during research and development phases. Screening tests are referenced and validated as alternatives to animal use (EpiSkin) for skin corrosion and irritation, others such as a reconstructed human epidermis and a human cornea are in the process of validation under ECVAM. EpiSkin is under review process to be integrated in the OECD guidelines as a stand alone alternative to the animal use for skin irritation test.

Our product line includes skin models, a reconstructed human epidermis with a collagen layer EpiSkin, a reconstructed human epidermis (RHE) without or with melanocytes (with a pigmentation degree from phototype II to VI) and, a reconstructed human cornea (HCE) on an inert polycarbonate filter and grown in a chemically defined cell culture medium.

Our philosophy is based on 3 main commitments: to support our customers by providing robust and reliable models, to ensure a training and education in using validated protocols allowing a large of raw materials, active ingredients and finished products in solid, liquid, powder, cream or gel form to be screened, and, to provide a dedicated service to our partners.

The ECVAM international validation study on *in vitro* tests for acute skin irritation: report on the validity of the EpiSkin and EpiDerm assays and on the Skin Integrity Function Test (Spielmann et al., 2007).

Assessment of the skin irritation potential of chemicals by using the SkinEthic RHE model and the common skin irritation protocol evaluated in the ECVAM skin irritation validation study (Kandarova et al., 2006a).

Assessment of the SkinEthic RHE model for *in vitro* skin corrosion testing of chemicals according to the new OECD TG 341 (Kandarova et al., 2006).

Pre-validation of a new *in vitro* reconstituted human corneal model to assess the eye irritating potential of chemicals (van Goethem et al., 2006).

Reconstituted human corneal epithelium. A new alternative to the Draize eye test for the assessment of the eye irritation potential of chemicals and cosmetic products (Doucet et al., 2006).

References

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