

Poster: skin models as alternatives to animal testing

Development of a new reconstituted human corneal model to assess the ocular irritating test

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Alternative methods to the Draize eye irritation test, such as the BCOP, HET-CAM, ICE, and IRE, are used to evaluate the ocular irritation potential of cosmetic, livelihood articles or industrial chemicals.

In order to improve the sensitivity and specificity of alternative eye irritation test, we developed a novel three-dimensional human corneal model that uses normal human corneal epithelial cells. In this study, two laboratories, have tested 20 reference chemicals. The results were compared to previously published *in vivo* eye irritation as well as existing data obtained in the other three-dimensional corneal model test. A good intra/inter-laboratory reproducibility and correlation with *in vivo* and other *in vitro* model results were obtained.

Our new three-dimensional model, developed from normal human corneal epithelial cells, is reproducible and is accurately predicting model of eye irritation test.

Keywords: eye irritation, cornea model