Evaluation report on the in vitro skin absorption tests

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Summary

In vitro skin absorption tests are used primarily in Europe and the Americas for assessing the safety of chemicals for transdermal absorption and skin permeability. A JaCVAM (Japanese Center for the Validation of Alternative Methods (JaCVAM) editorial committee on the skin absorption assessment discussed the advantages and disadvantages of several methods of *in vitro* skin absorption tests and concluded that these tests should be applied only after understanding the limits of their application and giving proper consideration to problematic points of testing. The committee concluded that it is possible to predict *in vivo* profiles from *in vitro* results that are performed with a proper understanding of the limits of applicability and in strict accordance with applicable guidelines and guidance. The expression "strict accordance" refers to having a thorough understanding of all test parameters, including selection of skin for testing, selection of receptors, recognizing the presence or absence of dermal metabolism, and the properties of test chemicals.

The four documents that we evaluated during this study meeting are well-known and these test methods are generally used in both Europe and the Americas. Thus, *in vitro* skin absorption testing is a useful method for assessing the risks and the efficacy of chemicals, when used with a understanding its limitations.