Transdermal and transmucosal kinetics using FDC

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Organisation

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SCOPE OF THE METHOD

The Method relates to	Human health
The Method is situated in	Basic Research
Type of method	In vitro - Ex vivo
Specify the type of cells/tissues/organs	Skin

DESCRIPTION

Method keywords

skin absorption

transport

kinetics

LC-MS

Scientific area keywords

pharmacokinetics

toxicokinetics

toxicity

Method description

Transport kinetics accross the skin and/or mucosa is investigated using Franz diffusion cells and LC-UV/MS detection of the investigated molecule in the receptor compartment.

Lab equipment

Franz diffusion cell system ;

LC-UV/MS.

Method status

Internally validated

Published in peer reviewed journal

PROS, CONS & FUTURE POTENTIAL

Advantages

No *in vitro* cell line is used but real *ex vivo* skin or mucosa.

REFERENCES, ASSOCIATED DOCUMENTS AND OTHER INFORMATION

References

Taevernier L, et al. (2016). Human skin permeation of emerging mycotoxins (beauvericin and enniatins). J Expo Sci Environ Epidemiol. 26(3):277-87.

Taevernier L, et al. (2015). Enniatin-containing solutions for oromucosal use: Quality-by-design ex-vivo transmucosal risk assessment of composition variability. Int J Pharm. 491(1-2):144-51.

Veryser L, et al. (2014). Quantitative transdermal behavior of pellitorine from Anacyclus pyrethrum extract. Phytomedicine. 21(14):1801-7.

Veryser L, et al. (2016). Mucosal and blood-brain barrier transport kinetics of the plant N-alkylamide spilanthol using in vitro and in vivo models. BMC Complement Altern Med. 16:177.

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