ABSTRACT

PENETRATION OF p-METHOXYCINNAMIC ACID SOLID LIPID NANOPARTICLES SYSTEM WITH HPC-H GEL BASE THROUGH RAT SKIN MEMBRANE
(SLN APMS System - Cetyl Alcohol – Propylene Glycol – Tween 80)

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The purpose of this study is to determine profile and penetration rate of solid lipid nanoparticles (SLN) p-methoxycinnamic acid in HPC gel base used wistar rat skin. In the formula I p-methoxycinnamic acid are on the HPC gel base without the addition of cetyl alcohol and tween 80, formula II p-methoxycinnamic acid are on the HPC gel base with addition of cetyl alcohol and tween 80 without formed of SLN system, and formula III p-methoxycinnamic acid are in SLN system at the HPC gel base. p-methoxycinnamic acid penetration test through wistar rat skin membrane was investigated using Franz-type diffusion cells. Flux is the p-methoxycinnamic acid cumulative amount which penetrated from the base for each cm^2 for each minute. Formula I the flux is, formula II is, and formula III is. The highest p-methoxycinnamic acid penetration flux is in formula I, whereas the lowest result is in formula II.

Keyword : p-methoxycinnamic acid, solid lipid nanoparticles (SLN), HPC, drug penetration