

A DPP study of ranitidine permeability

Nuñez-Vergara, Luis J.

Donoso, G.

Roman, A.

Squella, J. A.

The apparent permeation rate constants and amount of ranitidine transferred in 1 h were measured through everted rat intestine using a perfusion apparatus. The effects of pH and 5% or 10% ethanol on the apparent permeation parameters were evaluated. A selective permeation at pH 7.4 in the jejunum was found for ranitidine. Both ethanol concentrations diminished the apparent permeability in this segment significantly. A good correlation was established between the apparent first-order permeation rate constants and the lipophilicity of the drugs as measured by their apparent partition coefficients. However, a significant contribution of the ionized species to the overall permeation process was determined. Under the experimental conditions employed here, a passive diffusion transport mechanism through the small intestine (jejunum) is followed for ranitidine. © 1988.