

Effects of drugs on water permeability of erythrocyte membranes

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Abstract

The method of NMR-relaxation with the manganese doping has been applied to study changes of water permeability of red blood cell membranes affected by various concentrations of chlorhexidine digluconate and dimephosphone. It is shown that both investigated substances suppress the water permeability of the red blood cell membrane in a dose-dependent manner. Half-maximum inhibitory effect of studied substances was reached at the concentrations of 9 μM of chlorhexidine and 400 μM of dimephosphone. © 2010 Pleiades Publishing, Ltd.

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Keywords

chlorhexidine, dimephosphone, NMR, red blood cell, water permeability of the membrane