Cytotoxic Properties of Pancreatic Ribonuclease Modified by Oxanole KD-6, a Surface Active Substance

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Abstract

Pancreatic RNase modified by the surface active substance oxanole KD-6 (OxRNase) was studied in respect to its cytotoxic action on cells. The studies included in vitro and in vivo tests with intravital staining of the cells by neutral red and the 3H uridine label, as well as the test with the preparation action on fusion of lysosomes and phagosomes. It was shown that in all the tests the hydrophobised RNase had a higher cytotoxic action versus the native enzyme. The analysis of the experimental data suggested that the cytotoxicity of the hydrophobised RNase was due to its action on the cell membrane structures including the lysosome membranes.

Keywords

Oxanole, Pancreatic RNase, Surface active substances