

ANTITUMOR ACTIVITY OF BACTERIAL ENDOTOXINS AND THEIR SUBUNITS IN IN VITRO TEST

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SUMMARY

The tumoricidal effect of endotoxins and their subunits of *Shigella dysenteriae* serovar 1 of both growth forms and certain other representatives of the Enterobacteriaceae family was tested against Németh-Kellner mouse lymphoma cells using an in vitro assay based on the use of sodium chromate solution yielding labelled hexavalent ⁵¹Cr ions. The most effective in vitro activity was evidenced in both growth forms by *S. dysenteriae* 1 lipopolysaccharide-protein complex (LPSP) (76-92 %), lipid A and lipid B isolated from LPS (77-82 %) and lipid A and lipid B from LPSP (53-70 %). A direct dependence of the level of the Limulus test and pyrogenicity on the tumoricidal activity of a preparation was not demonstrated. The influence of selected cations (Cu, Fe, Ca, Mg, Zn) bound to selected substances on antitumor activity was monitored. The method of probit analysis is recommended as it enables estimation, based on a number of concentrations, of the regression line of probable effectiveness of a given preparation.

Key words: *S. dysenteriae* serovar 1, lipopolysaccharide, antitumor activity

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