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Title:	Helicobacter pylori TlyA Agglutinates Liposomes and Induces Fusion and Permeabilization of the Liposome Membranes
Authors:	Lata, K. (/jspui/browse?type=author&value=Lata%2C+K.) Chattopadhyay, K. (/jspui/browse?type=author&value=Chattopadhyay%2C+K.)
Keywords:	Vesicles Lipids Fluorescence Membranes Assays
Issue Date:	2014
Publisher:	American Chemical Society
Citation:	Biochemistry,53(22), pp.3553-3563.
Abstract:	Helicobacter pylori TlyA is a pore-forming hemolysin with potent cytotoxic activity. To explore the potential membrane-damaging activity of H. pylori TlyA, we have studied its interaction with the synthetic liposome vesicles. In our study, H. pylori TlyA shows a prominent ability to associate with the liposome vesicles without displaying an obligatory requirement for any protein receptor on the liposome membranes. Interaction of TlyA triggers agglutination of the liposome vesicles. Such agglutinating activity of TlyA could also be observed with erythrocytes before the induction of its pore-forming hemolytic activity. In addition to its agglutinating activity against liposomes, TlyA also induces fusion and disruption of the liposome membranes. Altogether, our study highlights novel membrane-damaging properties of H. pylori TlyA that have not been documented previously with any other TlyA family protein.
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