

Streptolysin O

Chemical Properties

CAS No. : 98072-47-0

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

Biological Description

Description	Streptolysin O causes both lysis of cells and cardiotoxicity. Streptolysin O is widely used for the controlled permeabilization of cell membranes. Streptolysin O exists in two forms, a reduced active state and an oxidized reversibly inactive state .
Targets(IC50)	Others,Endogenous Metabolite
In vitro	When streptococci secrete streptococcal hemolysin O, it is in an active state, but it will quickly oxidize into a reversible inactive state and form disulfide bonds[2]. Streptolysin O is a secreted virulence factor of GAS that induces apoptosis in neutrophils and macrophages at later time points (~4 h). Streptolysin O induces eukaryotic cell lysis in a cholesterol-dependent manner, is highly upregulated in the GAS M1T1 clone during bloodstream dissemination. Streptolysin O is known to promote Group A Streptococcus (GAS) resistance to phagocytic clearance by neutrophils, a critical first element of host defense against invasive bacterial infection[3].

Reference

Sierig G, et al. Cytotoxic effects of streptolysin o and streptolysin s enhance the virulence of poorlyencapsulated group a streptococci. Infect Immun. 2003 Jan;71(1):446-55.

Van Epps DE, et al. Streptolysin O II. Relationship of Sulphydryl Groups to Activity. Infect Immun. 1971 May;3(5):648-52.

Uchiyama S, et al. Streptolysin O Rapidly Impairs Neutrophil Oxidative Burst and Antibacterial Responses to Group A Streptococcus. Front Immunol. 2015 Nov 16;6:581.

Yamamoto I, et al. Mutational and comparative analysis of streptolysin O, an oxygen-labile streptococcal hemolysin. Biosci Biotechnol Biochem. 2001 Dec;65(12):2682-9.

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