

Native Streptococcus pyogenes Streptolysin O

Cat. No. NATE-0671

Lot. No. (See product label)

Introduction

Description

Streptolysin O possesses a single polypeptide chain with a molecular weight of 62 kDa. Streptolysin O binds to membrane cholesterol and oligomerizes to create a ring structure that consists of 45 to 50 units. The ring structure inserts into the membrane to make a large pore (25 to 30 nm), which DNA, RNA, peptides and proteins may pass. It is thiol-activated. It is inhibited by allicin, an active component of garlic.

Applications

Permeabilizes membranes to permit cellular uptake of large or charged molecules. Streptolysin O is a toxin secreted by Streptococcus pyogenes and is a prototype member of poreforming bacterial cytolysins. It is used permeabilize cell membranes to permit cellular uptake of large or charged molecules. It is used to study macromolecule delivery. It is a potential anticancer agent and is used to study suicide cancer gene therapy.

Synonyms

Streptolysin O; 98072-47-0; SLO

Product Information

Source

Streptococcus pyogenes

Form

lyophilized powder

CAS No.

98072-47-0

Molecular Weight

69 kDa

Composition

Protein, ~3% Lowry

Unit Definition

One unit will cause 50% lysis of 2% red blood cell suspensions in phosphate buffered saline, pH 7.4, after incubation at 37°C for 30 min.

Storage and Shipping Information

Storage

2-8°C