

Active Recombinant Hemolytic streptococcus Streptolysin O

Cat. No. slo-001S **Lot. No.** (See product label)

SPECIFICATION

Product Overview	The product was highly purified from E.coli over-expressing SLO of Group C hemolytic streptococci.
Species	Hemolytic streptococcus
Source	E.coli
Description	Streptolysin O (SLO) is a membrane-damaging extracellular toxin produced by hemolytic streptococci. The membrane-damaging activity is measured by hemolysis of red-blood cells. SLO is easily inactivated in the presence of oxygen but can be reactivated by thiol compounds, so it is also called thiol-activated cytolysin. SLO is produced not only by Group A hemolytic streptococci but also by Group C and Group G strains. The amino acid sequences are highly conserved among them and their homology is over 98%.
Form	1 mg/ml in PBS (-), 1 mM DTT, 50% glycerol, sterilized by filtration
Bio-activity	The specific activity is as high as 1,900,000 hemolytic units (HU) /mg and the product forms a big hole on the cell membrane, which enables the introduction of protein inside the cells in vivo.
AA Sequence	NKQNTANTETTTTNEQPKPESELTTTEKAGQKMDDMLNSNDMIKLAPKEMPLES AEKEKKSEDNKKSEEDHTEEINDKIYSLNYNELEVLAKNGETIENFVPKEGVKKADKFI VIERKKKNINTTPVDISIISVTDRTYPAALQLANKGFTENKPDVVTKRNPQKIHIDLP GMGDKATVEVNDPTYANVSTAIIDNLVNQWHDNYSGGNTLPARTQYTESMVYSKSQ

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IEAALNVNSKILDGTLGIDFKSISKGEKKVMIAAYKQIFYTVSANLPNNPADVFDKSVTL
 KELQRKGVSNAPPLFVSNVAYGRTVFKLETSSKSNDVEAAFSAAKGTDVKTNG
 KYSDILENSSFTAVVLGGDAAEHNKVVTKDFDVIRNVIKDNATFSRKNPAYPISYTSV
 FLKNNKIAGVNNRSEYVETTSTEYTSKGKINLSHQGAYVAQYEILWDEINYDDKGKEVI
 TKRRWDNNWYSKTSPFSTVIPLGANSRNRIMARECTGLAWEWWRKVIDERDVKLS
 KEINVNISGSTLSPYGSITYK

Purity Over 98% by SDS-PAGE

Unit Definition Definition of 1HU is activation of 50% hemolysis by incubating 3% sheep red blood cells at 37centigrade for 30 min.

Applications 1).Antigen for the measurement of anti-streptolysin O antibody (ASO) (diagnostic reagent).
 2).Reagent for membrane pore formation to introduce small-to-macromolecules into living cells.

Notes Inactivated SLO can be reactivated by thiol reagents such as 20 mM cysteine or 10 mM DTT.

Storage Store at -20 centigrade(long period, -70 centigrade).

Warning Handling and storage precautions: Biohazard. Do not use if skin is cut or scratched.
 Other precautions: Substance not yet fully tested.
 Protective gloves: compatible chemical-resistant gloves.
 Eye protection: ansi approved chemical workers goggle.
 Other protective equipment: eye wash and deluge shower meeting ansi design criteria. Work hygienic practices: wash thoroughly after handling.

GENE INFORMATION

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Gene Name	Streptolysin O precursor [Streptococcus pyogenes M1 GAS]
Official Symbol	slo
Synonyms	Streptolysin O; slo
Gene ID	900490
Protein Refseq	NP_268546.1
UniProt ID	Q54114
Purified SLO analysed by SDS- PAGE. 	