

# Active Recombinant Hemolytic streptococcus Streptolysin O

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

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | The product was highly purified from E.coli over-expressing SLO of Group C hemolytic streptococci.                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Species</b>          | Hemolytic streptococcus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>      | 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%. |
| <b>Form</b>             | 1 mg/ml in PBS (-), 1 mM DTT, 50% glycerol, sterilized by filtration                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Bio-activity</b>     | 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.                                                                                                                                                                                                                                                                                                                           |
| <b>AA Sequence</b>      | NKQNTANTETTTTNEQPKPESELTTTEKAGQKMDDMLNSNDMIKLAPKEMPLES<br>AEKEKKSEDNKKSEEDHTEEINDKIYSLNYNELEVLAKNGETIENFVPKEGVKKADKFI<br>VIERKKKNINTTPVDISIISVTDRTYPAALQLANKGFTENKPDVVTKRNPQKIHIDLP<br>GMGDKATVEVNDPTYANVSTAIIDNLVNQWHDNYSGGNTLPARTQYTESMVYSKSQ                                                                                                                                                                                                                                                                             |

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 45-1 Ramsey Road, Shirley, NY 11967, USA

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).

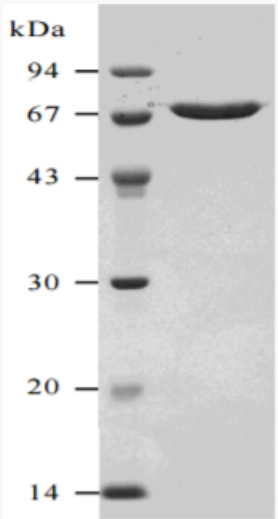
**Warning** Handling and storage precautions: Biohazard. Do not use if skin is cut or scratched.  
 Other precautions: Substance not yet fully tested.  
 Protective gloves: compatible chemical-resistant gloves.  
 Eye protection: ansi approved chemical workers goggle.  
 Other protective equipment: eye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

## GENE INFORMATION

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