

## Anti-Streptolysin O antibody, rabbit polyclonal

Cat.#64-001, Size:100 ul

### Background:

Streptolysin O (SLO) is a membrane-damaging extracellular toxin produced by hemolytic streptococci. In the hemolytic streptococci infection, the antibodies to various proteins secreted from the bacteria such as toxins increase. For the diagnostic confirmation of SLO production by the infection, the measurement of the antibody, ASLO (Anti-Streptolysin O), is most widely used.

### Specifications:

**Reactivity:** Streptolysin O of Group A,C,and G origins

**Immunogen:** His6-tagged full-size recombinant SLO of *S. dysgalactiae* subsp. *equismilis* H46A (group C hemolytic Streptococci) expressed and highly purified from *E. coli*

**Form:** Undiluted serum added with 0.09 % sodium azide.

**Storage:** Shipped at 4°C and store at -20°C

### Applications:

- Western blotting (x2,000~10,000 dilution). Dot blotting
- Neutralization of hemolysis by Streptolysin O (SLO)
- Immunoprecipitation
- ELISA

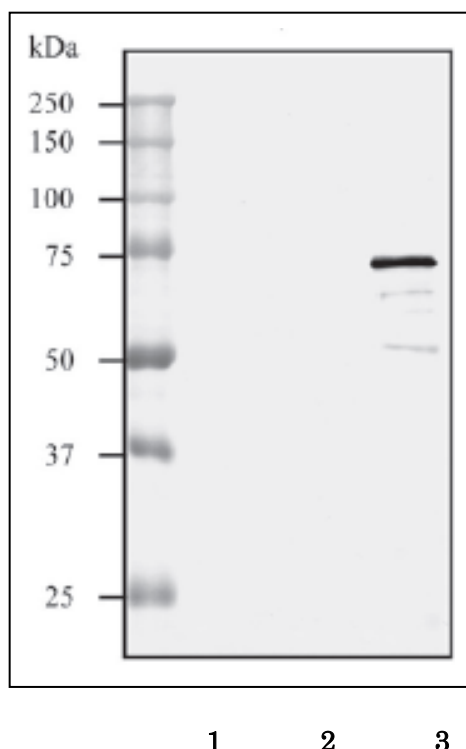
\*Most of the anti-Streptolysin O polyclonal antibodies (ASLO) sold in the current market were obtained by immunizing with SLO purified from the culture supernatant of hemolytic Streptococci. But the SLO preparations were contaminated with other secreted proteins such as NADase. This product is highly specific to SLO because of the purity of immunogen

**Link:** UniProtKB: [Q54114](#) (TACY\_STREQ)

**References:** This antibody has been described in Ref.1 and used in the following publications.

1. Kimoto H. et al.: Expression of recombinant streptolysin O and specific antibody production. *J. Mol. Microbiol. Biotechnol.*,10: 64-68 (2005). PMID: [16491027](#) **WB**
2. Minami M *et al* "Clindamycin-induced CovS-mediated regulation of the production of virulent exoproteins streptolysin O, NAD glycolhydrolase, and streptokinase in *Streptococcus pyogenes*." [Antimicrob Agents Chemother.](#) 2010 Jan;54(1):98-102 PMID: [19805566](#) **WB**
3. Potez S. et al. Tailored protection against plasmalemmal injury by annexins with different Ca<sup>2+</sup> sensitivities. [J Biol Chem.](#) 2011 May 20;286(20):17982-91. PMID: [21454475](#) **Immuno-electronmicroscopy**
4. Baruch M et al. An extracellular bacterial pathogen modulates host metabolism to regulate its own sensing and proliferation. [Cell.](#) 2014 Jan 16;156(1-2):97-108. PMID: [24439371](#) **WB**

**Related product:** 01-531 Streptolysin O



**Fig. 1 Western blot analysis of culture supernatant from GAS strain Sa and GCS strain H46A with the anti-SLO antibody.**

Lane 1; Medium only

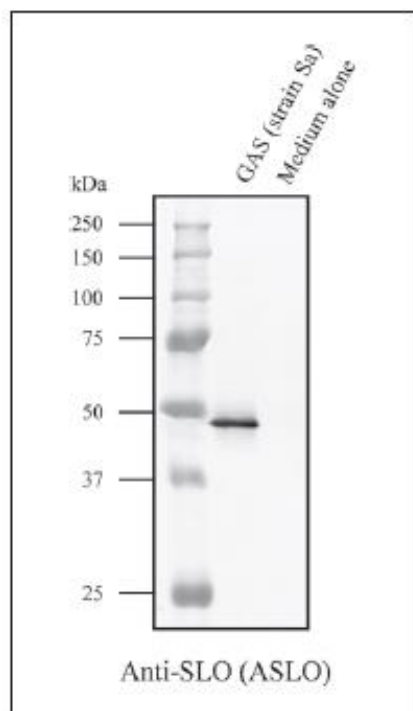
Lane 2\*; Culture supernatant of GAS strain Sa

Lane 3\*\*; Culture supernatant of GCS strain H46A

The antibody was used at 1/2,000 dilution

\* Most of SLO in culture medium of GAS strain Sa is proteolytically degraded, accounting for low activity level of SLO in the culture of this strain. Condensed sample is analyzed in Fig. 2.

\*\* The two faint bands below SLO band are partially degraded SLO.



**Fig.2. Western blot analysis of concentrated culture supernatant of GAS strain Sa with the anti-SLO antibody.**

Culture supernatant was approximately 1,000~2,000 fold concentrated from culture medium by ammonium fractionation and heat-precipitation.

Lane 1; Concentrated culture of GSA strain Sa

Lane 2; Concentrated medium only

The SLO of GSA strains is degraded by an exoprotease called streptococcal pyrogenic exotoxin B and both the concentration and size of SLO in culture medium is decreased from native one.