

Technical Data Sheet

Recombinant Core Streptavidin

General Information

Product Name: Recombinant Core Streptavidin (rc-SA)

Catalog Number: A09S

Formulation: Lyophilized from 5mM PB (4mM Na₂HPO₄, 1mM NaH₂PO₄, pH7.4)

Mol. Wt.: Subunit 13.5 kDa; Tetramer 54kDa

Theory pI: 6.04

Theory Activity: 18.1 U/mg protein (rc-SA:Biotin = 1:4(mol:mol))

Resources: *Escherichia coli* (*E. coli*)

Purity: ≥95% by SDS-PAGE analysis

Test Activity: ≥15 U/mg protein (Determined by NUPTEC according to modified Green Method)

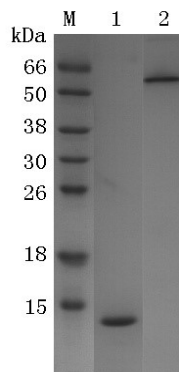
Product is stable for up to three years from date of receipt at -20°C to -80°C.

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Description

Streptavidin is a homotetrameric protein found in the culture broth of *Streptomyces avidinii*. Similar to avidin, one mole of streptavidin can bind 4 moles of biotin with a high affinity virtually unmatched in nature. Streptavidin lacks carbohydrate side chains present on avidin and has an isoelectric point close to neutrality. Therefore it has a reducing nonspecific binding level as compared to avidin. Streptavidin has been extensively applied in various biological fields, such as ELISA, IHC, TRFIA, quantifying PCR, isolation of single-stranded nucleotide, purification of biomolecule, and monoclonal antibody production as well.

Compared to native streptavidin, rc-SA is improved in stability and solubility by the removal of activity-unrelated sequence. Also, one cysteine residue is inserted at the C-terminus of rc-SA for covalently conjugating to resin.



M: Protein Molecular Weight Marker

Lane 1: rc-SA subunit

Lane 2: rc-SA homotetramer

Research use only or for further manufacturing