

SAV

Recombinant Streptavidin

Catalog No.	CSI12858B	Quantity:	20 mg
	CSI12858C		1.0 g

Description: Streptavidin is a homotetrameric protein secreted by *Streptomyces avidinii* which binds firmly to biotin. Streptavidin is widely used in molecular biology because of its unique high affinity for biotin. The dissociation constant (K_d) of the biotin-streptavidin complex is about ~10⁻¹⁵ mol/L. The strong affinity recognition of biotin and biotinylated molecules has made streptavidin one of the most important components in diagnostics and laboratory kits. The streptavidin/biotin system has one of the biggest free energies of association yet observed for noncovalent binding of a protein and small ligand in aqueous solution (K_{assoc} = 10⁻¹⁴ mol/L). The complexes are also extremely stable over a wide range of temperature and pH.

UniProt ID: P22629

Source: *E. coli*

Molecular Weight: 52 kDa

Formulation: Lyophilized from 10 mM potassium phosphate, pH 6.5

Purity: > 98% as determined by SDS-PAGE and HPLC analyses

AA Sequence: MAEAGITGTWYNQLGSTFIVTAGADGALTGTYESAVGNAESRYVLT
GRYDSAPATDGSGTALGWTVAWKNNYRNAHSATTWSGQYVGGGA
EARINTQWLLTSGTTEANAWKSTLVGHDTFTKVKPSAAS

Specific Activity: > 17 U/mg. 1 unit binds 1 µg D-biotin. Proteolytic activity is < 10⁻³ U/mg (Azocoll, 25°C, 24 hours, pH 8.0).

Applications: Streptavidin may be used to visualize biotin conjugated molecules in ELISA, blotting and histological techniques.

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to the vial to fully solubilize the protein ≥ 0.5 mg/ml.

Storage & Stability: Store at -20°C to -80°C. For long term storage of reconstituted protein, add 1 mM EDTA and/or 0.02% sodium azide or pass the solution through a sterile filter. Aliquot and store at -20°C to -80°C. **Avoid repeated freeze-thaw cycles.**

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

