

SAV

Native Streptavidin

Catalog No.	CSI12857A	Quantity:	2 mg
	CSI12857B		10 mg
	CSI12857C		100 mg

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 (Kd) 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: *Streptomyces avidinii*

Concentration: 25 mg/ml. prior to lyophilization

Molecular Weight: 55 kDa

Formulation: 10 mM potassium phosphate buffer, pH 6.5

Purity: > 95% as determined by SDS-PAGE analysis

Solubility: Clear solution at 5.0 mg/ml in 0.1 M NaCl.

Specific Activity: 16.8 U/mg 1 unit binds 1 µg biotin.

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

Reconstitution: **Centrifuge vial prior to opening.** Reconstitute in 0.1 M NaCl, 1 mM EDTA, sterile filter or add sodium azide to 0.02% for long term storage.

Storage & Stability: Store at -20°C to -80°C. Upon reconstitution, prepare aliquots 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.

