

## 32-4989: Recombinant Streptavidin

### Description

Source : Escherichia Coli. Streptavidin Streptomyces Avidinii Recombinant produced in E.Coli. The molecular weight per tetramer is approximately 52kDa. Streptavidin is a tetrameric protein secreted by Streptomyces avidinii which binds firmly to biotin. Streptavidin is widely used in molecular biology through its unique high affinity for the vitamin biotin. The dissociation constant (Kd) of the biotin-streptavidin complex is about  $\sim 10^{-15}$  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 of yet observed for noncovalent binding of a protein and small ligand in aqueous solution ( $K_{\text{assoc}} = 10^{14}$ ). The complexes are also extremely stable over a wide range of temperature and pH.

### Product Info

<b>Amount :</b>	20 mg
<b>Purification :</b>	Greater than 98.0% as determined by SDS-PAGE and HPLC.
<b>Content :</b>	Lyophilized in 10mM potassium phosphate buffer pH 6.5.
<b>Storage condition :</b>	Streptavidin is shipped at ambient temperature, upon arrival store at -20°C.
<b>Amino Acid :</b>	MAEAGITGTWYNQLGSTFIVTAGADGALTGTYESAVGNAESRYVLTGRYDSAPATDGSGTALGWTVAWKNNY RNAHSATTWSGQYVGGAEARINTQWLLTSGTTEANAWKSTLVGHDTFTKVKPSAAS.

### Application Note

It is recommended to reconstitute the lyophilized Streptavidin in sterile 18M-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

