

## Streptavidin Protein

### Product Description

<b>Catalog #:</b>	BXH450, 2mg	BXH451, 10mg	BXH452, 100mg
<b>Name :</b>	<b>Streptavidin Protein</b>		
<b>Description :</b>	Streptavidin is a protein produced by <i>Streptomyces avidinii</i> and isolated by purification from fermentation broth. The pure, homogeneous protein shows predominantly one single band in SDS PAGE. Streptavidin consists of 4 identical subunits, each bearing an active binding site for biotin. Streptavidin has a molecular weight of 55kDa.		
<b>Source :</b>	<i>Bacterium Streptomyces avidinii</i>		
<b>Physical Appearance :</b>	Sterile Filtered lyophilized powder.		
<b>Formulation :</b>	The Streptavidin was lyophilized from a 25mg/ml solution in 10 mM potassium phosphate buffer pH 6.5		
<b>Solubility:</b>	Gives a clear solution at 10mg/ml in 4.0 mM potassium phosphate pH 6.5		
<b>Specific Activity :</b>	The biological activity is 16.8 U/mg, 1 unit binds 1µg biotin		
<b>Storage :</b>	Streptavidin although stable at 4°C for 3 weeks, should be stored desiccated below -18°C. For longer storage in dissolved form add 1mM EDTA and/or 0.02 % NaN <sub>3</sub> or pass the solution through a sterile filter. Please prevent freeze-thaw cycles.		

For Research Use Only

### Technical and Scientific Information

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 (K<sub>d</sub>) 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 ( $K_{\text{assoc}} = 10^{14}$  mol/L). The complexes are also extremely stable over a wide range of temperature and pH.

### Ordering information

Catalog size quantities and prices may be found at <http://www.interchim.com>.

Please inquire for higher quantities (availability, shipment conditions).

Please contact InterBioTech – Interchim for any other information

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