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## Product Data Sheet

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Product Name: Streptavidin  
 Cat. No.: GP24730  
 Batch No.: 1

**Product Data**

Purity	Greater than 98.0% as determined by SDS-PAGE and HPLC.	Source
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.	Shipping Condition
Amino Acid Sequence	MAEAGITGTWYNQLGSTFIVTAGADGALTGTYESAVGNAESRYLTGRYDSAPATDGSGTALGWTVAWKNNYRNAHSATTWSGQYVGGAEARINTQI	
Solubility	It is recommended to reconstitute the lyophilized Streptavidin in sterile 18MΩ-cm H <sub>2</sub> O not less than 0.5mg/ml, which can then be formulated in 10mM potassium phosphate buffer pH 6.5.	

**Introduction**

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 ~10<sup>-15</sup> 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<sub>assoc</sub> = 10<sup>14</sup>). The complexes are also extremely stable over a wide range of temperature and pH.

**Stability**

Streptavidin is shipped at ambient temperature, upon arrival store at -20°C .

**Background**

Streptavidin *Streptomyces Avidinii* Recombinant produced in E.Coli. The molecular weight per tetramer is approximately 52kDa.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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