Product Data Sheet

Product Name:	Streptavidin Protein
Cat. No.:	GP24729
Batch No.:	1

Product Data

Purity	>98%	Source	Bacterium Streptomyces avidinii.
Phycical Appearance	solid	Shipping Condition	Shipped at Room temp.
Solubility	Gives a clear solution at 5mg/ml in 0.1M NaCl.		
Formulation	Lyophilized (1mg/ml) in 50mM NaCl, pH 9.0.		

Introduction

Streptavidin is a tetrameric protein secreted by Streptomyces avidinii which binds firmly to biotin. Streptavidin is wilyde used in molecular biology through its unique high affinity for the vitamin 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 of yet observed for noncovalent binding of a protein and small ligand in aqueous solution (K_assoc = 10**14). The complexes are also extremely stable over a wide range of temperature and pH.

Stability

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 % NaN3 or pass the solution through a sterile filter.Please prevent freeze-thaw cycles.

Background

Streptavidin is a protein produced by Streptomyces avidinii 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.

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