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Certificate of Analysis and Data Sheet

Recombinant Streptococcal Streptavidin-NC

Catalog No.
228-11471

Source
Escherichia Coli.

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 (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 ($K_{\text{assoc}} = 10^{14}$). The complexes are also extremely stable over a wide range of temperature and pH.

Description

Recombinant Streptavidin-NC produced in *E. Coli* is a single, non-glycosylated, polypeptide chain having a molecular mass of 24kDa. Recombinant Streptavidin-NC not only binds to nitrocellulose membrane readily but also preserves the full biotin binding ability.

Physical Appearance

Sterile liquid formulation at the concentration.

Formulation

The sterile solution contains 50% glycerol.

Stability

Streptavidin-NC although stable at 4°C for 3 weeks, should be stored below -18°C. Please prevent freeze thaw cycles.

Purity

Greater than 90.0% as determined by

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Applications

Calibrators and controls for immunoassays and western blot standards.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**