

Recombinant Streptavidin (rStreptavidin)

PrimeGene Technical DataSheet

Catalog Number: 1005-01

Source: Recombinant streptavidin from Streptomyces avidinii, produced in Escherichia coli.

Molecular Weight: ~52,000 per tetramer. **Size:** 1mg/ 25mg/ 100mg/ 1g

AA Sequence: MAEAGITGTW YNQLGSTFIV TAGADGALTG TYESAVGNAE SRYVLTGRYD

SAPATDGSGT ALGWTVAWKN NYRNAHSATT WSGQYVGGAE ARINTQWLLT

SGTTEANAWK STLVGHDTFT KVKPSAAS

A282 of 0.1% solution: 3.1

Purity: > 98 % by SDS-PAGE and HPLC analyses Specific Activity: > 17 U/mg (one unit binds 1 μg D-biotin)

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder. **Formulation:** Lyophilized in 10 mM potassium phosphate buffer pH 6.5.

Endotoxin: Less than 0.1 EU/μg of rStreptavidin as determined by LAL method.

Proteolytic Activity: < 10⁻³ U/mg protein (Azocoll, 25 °C, 24 h, pH 8.0)

Reconstitution: Dissolve with double distilled water

Solubility: Clearly soluble in ddH_2O ($OD_{405nm} < 0.1$ at 10 mg/ml water)

Stability & Storage: Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

• 12 months from date of receipt, -20 to -70 °C as supplied.

• 1 month, 2 to 8 °C under sterile conditions after reconstitution.

3 months, -20 to -70 °C under sterile conditions after reconstitution.

Shipment: At ambient temperature

Usage: This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further

evaluation purposes. NOT FOR HUMAN USE.

Streptavidin

Streptavidin is a tetrameric protein composed of identic subunits. Each subunit binds one biotin molecule with a KD of $\sim 1 \times 10^{-15}$ M. The preparation contains an N- and C-terminal shortened variant (core streptavidin) with improved properties concerning homogeneity, solubility, resistance towards proteolytic degradation and accessibility of the biotin binding pocket as compared to native streptavidin.

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