
Product Data Sheet

Product Name: Avidin Protein

Cat. No.: GP22811

Batch No.: 1

Product Data

Purity >98%

Source Hen's egg white.

Physical Appearance solid

Shipping Condition Shipped at Room temp.

Synonyms Avidin; AVD; AVID.

Solubility It is recommended to reconstitute the lyophilized Avidin in sterile 18MΩ-cm H₂O not less than 100μg/ml or more than 10mg/ml solutions.

Formulation

Introduction

Avidin is a tetrameric protein of 4 identical subunits (homotetramer) each of which can bind to biotin with a high degree of affinity and specificity. Avidin molecular weight in its tetrameric form is estimated to be between 66-69 kDa. Avidin is produced in the oviducts of birds, reptiles and amphibians and is subsequently deposited in the whites of their eggs. In the chicken egg white, avidin makes up roughly 0.05% of total protein (approximately 1.8 mg per egg). 10% of Avidin's molecular weight is ascribed to carbohydrate content which is composed of four to five mannose and three N-acetylglucosamine residues. Avidin has at least three distinctive oligosaccharide structural type which are similar in structure and composition. The dissociation constant (K_D) of avidin is approximately 10⁻¹⁵M, making it one of the strongest known non-covalent bonds.

Biological Activity

14.6units/mg protein, 1 unit binds 1μg biotin.

Stability

Lyophilized Avidin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution Avidin should be stored at 4°C between 2-7 days and for future use below -18°C .For long term storage it is recommended to add a

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

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carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Background

Avidin is a glycosylated polypeptide chain having a molecular mass of 68kDa and containing 4 subunits each with a binding site for biotin. The Avidin is purified by affinity chromatographic techniques. The purification procedure ensures minimal contamination by other proteins or DNA. The resulting high activity and purity of the product gives very low non-specific binding (NSB).

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