

## Recombinant Streptavidin

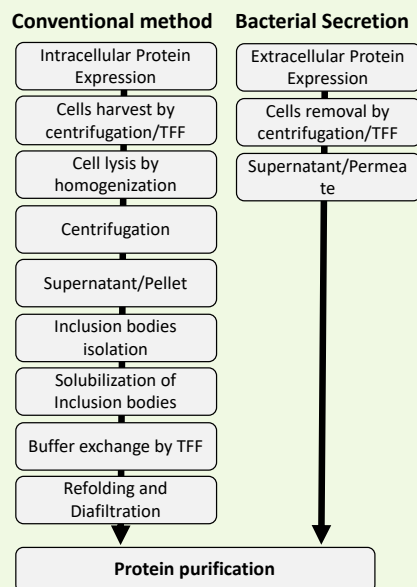
### Cost-Effective Recombinant Streptavidin for R&D and Diagnostics

#### Product Overview

Recombinant Streptavidin is a tetrameric biotin-binding protein expressed and secreted from E. coli (BacSec® platform technology). It exhibits extremely high affinity for biotin ( $K_d \approx 10^{-15}$  M), making it an ideal tool for a wide range of biotin-based detection, purification, and immobilization applications. Unlike avidin, streptavidin lacks glycosylation and has a near-neutral isoelectric point, reducing nonspecific binding.

#### Applications

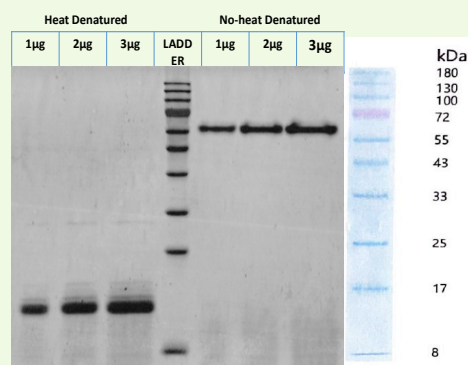
- Labeling and detection of biotinylated proteins, nucleic acids, and antibodies
- Affinity purification of biotinylated molecules
- ELISA, Western blotting, IHC, flow cytometry
- Surface immobilization for biosensors, microarrays, SPR studies
- Nanoparticle and drug delivery conjugation systems



#### Technical Specifications

Unit definition: One unit of streptavidin is defined as the amount required to bind 1 µg of D-biotin at pH 7.0 using the modified HABa method

Parameter	Specification
<b>Source</b>	E. coli secreted recombinant streptavidin
<b>Appearance</b>	White lyophilized powder
<b>Purity (SDS-PAGE)</b>	≥95%
<b>Endotoxin</b>	<1 EU/mg
<b>Activity</b>	>15 U/mg
<b>Solubility</b>	Any buffers or Ultrapure H <sub>2</sub> O
<b>Shelf Life</b>	24 months (at 4°C)



### Quality Control

- SDS-PAGE: Confirms molecular weight and purity
- HABA Assay: Confirms biotin-binding capacity
- Endotoxin Test: Ensures suitability for in vitro applications
- Functional Assay: Binding efficiency tested with biotinylated substrates

### Safety Information

Recombinant protein – non-hazardous under normal laboratory handling. Use standard laboratory protective measures (gloves, lab coat, goggles). Not intended for therapeutic or diagnostic use in humans.

### Ordering Information

Catalog No.	Product Description	Size
RS-1	rStreptavidin	1 mg
RS-5	rStreptavidin	5 mg
RS-10	rStreptavidin	10 mg
RS-100	rStreptavidin	100 mg
RS-1000	rStreptavidin	1000 mg
RS-Bulk	Bulk quantities available	Inquire

### Regulatory & Quality

- Produced under ISO 9001:2015 certified process.
- Animal component-free (ACF), *E. coli* secreted recombinant Protein A ligand.
- Low endotoxins, HCP and bioburden.
- QC tested for binding capacity, Endotoxins and HCPs.

### Sales & Business development

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