

## Streptavidin-Sepharose Beads

**CATALOG #:** 6565 -2 2 ml  
6565 -5 5 ml  
6565 -10 10 ml  
6565 -100 100 ml

**FORMULATION:** Provided as a 50% aqueous slurry containing 0.02% sodium azide

**BINDING CAPACITY:** The binding capacity of the Streptavidin-Sepharose beads is 20-40 µg for free biotin<sup>a</sup> or 2-3 mg for biotinylated BSA<sup>b</sup> per ml of resin.

a: As determined by BioVision's Biotin Assay Kit, Catalog # K811-50,100.

b: BioVision's Biotinylated BSA, Catalog # 7097.

**DESCRIPTION:** Streptavidin, a protein from *Streptomyces avidinii*, is known to bind to biotin with very high affinity (dissociation constant  $10^{-14}$  M). It has a tetrameric structure in which each molecule of Streptavidin binds to four molecules of biotin. These interactions have been utilized to isolate variety of biotin labeled proteins, antibodies and other biomolecules (BioVision Cat #s 2322, 2323, 2326, 2345-2347). BioVision's leak-resistant Streptavidin conjugated beads are prepared by covalent conjugation of Streptavidin to highly cross-linked Sepharose beads by a proprietary method.

**APPLICATIONS:** BioVision's Streptavidin-Sepharose beads can be used for the purification of biotinylated biomolecules for subsequent ELISA, immunoassays and other downstream analyses. In addition, they can also be used to purify antigens in conjunction with biotinylated antibodies. To recover biotinylated molecules under non-denaturing conditions, BioVision's thiol-cleavable Biotinylation reagent (Catalog # 2323) can be used.

**STORAGE CONDITIONS:** Store at 4°C. Do not freeze the resin. Stable as supplied for at least 1 year.

**GENERAL PROTOCOL:** The protocol given below is a general one for purifying biotinylated proteins. Certain modifications may be necessary to the protocol, depending upon the type of protein.

**Suggested Binding Buffer:** 50 mM Na<sub>2</sub>HPO<sub>4</sub>, 100 mM NaCl, pH 7.5

**Elution buffers:** Choose an appropriate elution buffer from below:

- 100 mM glycine pH 2.2-2.8 for purification of antibody or antigen with biotinylated antigen or biotinylated antibody
  - 6 M guanidine-HCl, pH 1.5 for purification of biotinylated molecules
  - 50 mM TCEP or 100 mM BME in pH 7 - 7.5 buffers when Sulfo-NHS-SS-Biotin (BioVision Cat. # 2323) is used in Biotinylation.
1. Transfer the resin in a disposable column. Equilibrate the resin in the Binding Buffer.
  2. Add biotinylated protein sample (<maximum capacity of the resin) to the resin and incubate at room temperature for ~1-2 h.
  3. Wash the resin with at least 10 column volumes of Binding Buffer.
  4. Elute the bound biotinylated sample with 5-10 column volumes of an appropriate Elution Buffer in 1 mL fractions. (Incubate the beads with 50 mM TCEP for 4 h, or 100 mM BME for 2 hours in pH 7 - 7.5 buffer when the protein is labeled with the Sulfo-NHS-SS-Biotin).
  5. Dialyze against a suitable buffer for downstream applications.

### RELATED PRODUCTS:

- Biotin-LC-NHS (2345)
- Biotin-LC-LC-NHS (2346)
- Biotin-NHS (2347)
- Sulfo-NHS-Biotin (2322)
- Sulfo-NHS-SS-Biotin (2323)
- Sulfo-NHS-LC-Biotin (2326)
- Protein G-Biotin (6512)
- Protein A/G-Biotin (6506)
- Annexin V-Biotin Reagent (1003)
- Methyl Lysine (Biotin) Antibody (6124)
- Histone H3 Peptide, biotin conjugate (7143)
- HA-Biotin Antibody (3996B)
- EGF Biotinylated Antibody (5022B)
- Annexin V-Biotin Apoptosis Kit (K109-25, 100, 400)

**FOR RESEARCH USE ONLY! Not to be used in humans.**