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**I. DESCRIPTION**

GenScript IminoBiotin Resin (Cat. No. L00272) is for the purification of avidin, streptavidin or their conjugates. Iminobiotin is the cyclic guanido analog of biotin that has a lower affinity constant for binding avidin, streptavidin. The Iminobiotin analog can be used in situations requiring mild dissociation of the avidin-biotin complex. Normally, disrupting an avidin-biotin interaction requires 6-8 M guanidine•HCl, pH 1.5, an environment that is often too harsh for proteins to maintain native structure or activity. Iminobiotin binds at pH values above 9.5 and elution is performed at pH 4.0.

**II. HIGHLIGHTS**

- ✧ High capacity, > 12 mg Streptavidin (Cat. No. Z 02043) per ml of settled resin.
- ✧ Reusable, can be reused 5 - 10 times without decrease of binding capacity.
- ✧ Agarose media, 4% beaded agarose.

**III. PURIFICATION PROCEDURE**

Before use, prepare the following two solutions:

- A. Binding Buffer:
  - Sodium borate 50 mM
  - NaCl 0.3 M, pH 11.0
- B. Elution Buffer:
  - Sodium acetate 50 mM, pH 4.0

1. Pack an appropriate column with the gel slurry according to the quantity of protein.
2. Equilibrate the column with 4 - 5 column volumes of Binding Buffer.
3. Apply the sample to the column with the flow speed of 1 ml/min. The sample should be adjusted to contain 0.3 M NaCl with pH between 9.5 and 11.
4. Wash the column with 10 - 20 column volumes of Binding Buffer.
5. Elute the bound protein by 10 - 20 column volumes of the Elution Buffer.
6. Collect the elute and immediately neutralize it with 1M NaOH to avoid loss of activity resulting from extended exposure to acidic pH.



#### IV. APPLICATION EXAMPLE

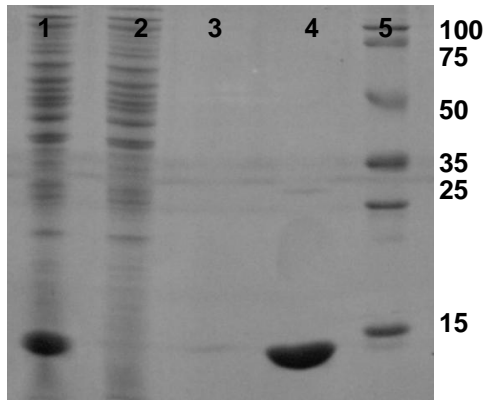


Fig. 1. Purification of Streptavidin using IminoBiotin Resin (Cat. No. L00272)

- 1 Sample
- 2 Flow
- 3 Wash
- 4 Elute
- 5 Marker

#### V. ORDERING INFORMATION:

IminoBiotin Resin, Cat. No. L00272.

**For research use only.**

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