INSTRUCTIONS

Immobilized Soybean Trypsin Inhibitor

20235 1830.0

Number	Description
20235	**Immobilized Soybean Trypsin Inhibitor,** 2 ml settled gel, supplied as a 50% slurry in 50% glycerol and 0.05% sodium azide Binding Capacity: 9 mg of trypsin/ml of settled gel Support: 4% beaded agarose **Storage:** Upon receipt store at -20°C. Product is shipped at ambient temperature.

Introduction

The Immobilized Soybean Trypsin Inhibitor is an effective tool for removing trypsin, chymotrypsin and elastase from protein digests. The soybean trypsin inhibitor is immobilized on beaded agarose enabling easy and efficient sample purifications. After purification, the support can be regenerated at least 10 times without significant loss in activity.

Procedure for Removing Trypsin from Samples

A. Materials Required

- Disposable gravity-flow or spin columns (for example, Disposable Polypropylene Columns, Product No 29922 or Handee™ Mini-Spin Columns, Product No. 69705)
- Binding Buffer: 50 mM Tris•HCl, 0.1 M NaCl, 10 mM $CaCl_2$; pH 7.2
- Protein sample dialyzed or desalted using the Binding Buffer
- Elution Buffer: 0.1 M acetic acid, 10 mM $CaCl_2$

B. Method

1. Pack a column with Immobilized Soybean Trypsin Inhibitor.
2. Equilibrate the column with Binding Buffer.
3. Add the dialyzed protein sample to the column.
4. Add Binding Buffer to the column and collect the flow-through, which contains the trypsin-free sample. Monitor sample collection by measuring its absorbance at 280 nm. Continue to add Binding Buffer until the absorbance approaches baseline.
5. To elute the bound trypsin, add Elution Buffer to the column and monitor flow-through by measuring its absorbance at 280 nm.
6. Regenerate the column by washing with Binding Buffer. The Immobilized Soybean Trypsin Inhibitor can be regenerated at least 10 times without significant loss in activity.
7. For storage, equilibrate column with 50% glycerol and 0.05% sodium azide and store at -20°C.

   Note: The beaded agarose will become damaged if stored without 50% glycerol.

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Related Pierce Products

78410	**Halt™ Protease Inhibitor Cocktail Kit**
78415	**Halt™ Protease Inhibitor Cocktail, EDTA-Free**
89834	**Lysozyme,** 25 g
89835	**DNase I,** 5,000 units
78115	**Inclusion Body Solubilization Reagent,** 100 ml
25200-25244	**Precise™ Protein Gels** (see catalog or web site for a complete listing)
24615	**Imperial™ Protein Stain**, 1 L, coomassie R-250 stain
24590	**GelCode™ Blue Stain Reagent**, 500 ml, coomassie G-250 stain
24582	**E-Zinc® Reversible Stain Kit**
26681	**BlueRanger® Prestained Protein Molecular Weight Marker Mix**
23227	**BCA™ Protein Assay Kit**
23236	**Coomassie Plus – The Better Bradford™ Assay Kit**

References

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Reeck, G.R., *et al.* (1971). Isolation and characterization of carboxypeptidases A and B from activated pancreatic juice. *Biochemistry-USA.* **10(25):**4690-8.

Wu, C. *et al.* (1999). Proteolysis of native proteins. *J. Biol. Chem.* **274(2):**1108-15.