

SiaRich™ Pan-Specific Resin Kit contents

Catalog #	Description	Size	Storage	Binding Capacity
SR0501	SiaRich™ Pan-Specific Resin	2 mL	4°C, up to 6 months	400 µg of bovine fetuin
BA0105	5X Binding Buffer 5	2x 100 mL	4 to 25°C	

Above products are for research use only and not for resale or for any use in the manufacture of a therapeutic or for any diagnostic purpose.

Product Description

SiaFind™ Pan-Specific Lectenz® is a sialic acid affinity reagent for the detection, separation and enrichment of sialoglycans terminating in Siaα2,3Gal, Siaα2,6Gal, and Siaα2,8Sia commonly found in glycoconjugates (glycoproteins, glycolipids, and oligo- or polysaccharides). It has high affinity and specificity towards sialoglycans in a linkage independent manner (pan-specific). This reagent can be employed as a capture reagent in a variety of applications.

SiaRich™ Pan-Specific Resin (Cat #SR0501) is an agarose resin coupled with a recombinant tandem repeat of the SiaFind™ Pan-Specific Lectenz® and is designed for the rapid and specific enrichment of sialoglycoconjugates terminating in Siaα2,3Gal, Siaα2,6Gal, and Siaα2,8Sia from a complex sample. Specifically bound sialylated glycoconjugates are non-competitively eluted from the resin for downstream analysis such as mass spectrometry, ELISA, and Western blotting.

Form, Storage, and Use

The **SiaRich™ Pan-Specific Resin** is supplied as a 50% slurry in Tris Buffered Saline ready for affinity chromatography. The kit includes 2 bottles of 5X Binding Buffer 5 (Cat #BA0105) for equilibration, binding, washing, and storage.

Affinity Chromatography Guide

Affinity chromatography may be performed in a disposable mini column.

Prepare 1X Binding Buffer 5 (0.025 M EPPS, 0.05 M NaCl, pH 7.5), Elution Buffer (0.025 M EPPS, 2.05 M NaCl, pH 7.5) and Regeneration Buffer (0.025 M EPPS, 0.05 M NaCl, 5 M guanidine-HCl, pH 7.5) according to the following table (analytical grade sodium chloride and guanidine hydrochloride supplied by the customer).

Buffer	5X Binding Buffer 5	Sodium Chloride (NaCl; MW=58.44)	Guanidine Hydrochloride (CH ₅ N ₃ ·HCl; MW=95.53)	Ultra-pure Water (mL)
1X Binding Buffer 5 (50 mL)	10 mL			40 mL
Elution Buffer (50 mL)	10 mL	5.84 g		38 mL
Regeneration Buffer (50 mL)	10 mL		23.88 g	19 mL

- Transfer 1 mL of fully resuspended SiaRich™ Pan-Specific Resin into a mini-column for a packed resin volume of 500 µL.
- Equilibrate the resin with 5 resin volumes of 1X Binding Buffer 5.
- Load 100 to 200 µL sample prepared in 1X Binding Buffer 5. Collect flow-through if desired.
- Wash with 5-10 resin volumes of 1X Binding Buffer 5. Collect flow-through if desired.
- Elute bound analyte(s) with 5-10 resin volumes of Elution Buffer and/or Regeneration Buffer. Collect elution in small fractions if desired, for example, 0.25 to 1 mL per fraction.

Note: Tightly bound sialylated glycoconjugates may require the use of Regeneration Buffer to be eluted from the resin.

- Regenerate the resin with 5 resin volumes of Regeneration Buffer.
- Rinse the resin with 5 resin volumes of 1X Binding Buffer 5, cap the tip of the column, then add another resin volume for storage. (Optional: For long-term storage, add ethanol to 20%.)
- Seal and store the column at 4°C. The column may be reused several times if regenerated and stored properly.

Additional considerations:

For peptide enrichment for mass spectrometry, the SiaRich™ Pan-Specific Resin affinity chromatography fractions may be loaded directly onto a C18 SPE column for desalting, buffer exchange, and concentration.