SiaRich™ α2,3-Specific Resin Kit contents

Catalog #	Description	Size	Storage	Binding Capacity
SR2301	SiaRich™ α2,3-Specific Resin	2 mL	4°C, up to 6 months	300 µg of bovine fetuin
BA0102	5X SiaFind™ Binding Buffer 2	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™ α2,3-Specific Lectenz® is a sialic acid affinity reagent for the detection, separation, and enrichment of sialoglycans terminating in Neu5Acα2,3Gal commonly found in glycoconjugates (glycoproteins, glycolipids, and oligo- or polysaccharides). It has high affinity and specificity towards α2,3 linked sialic acids on glycans. However, it does not bind effectively to branched sialylated epitopes such as sialyl Lewis A/X. This reagent can be employed as a capture reagent in a variety of applications.

SiaRich™ α2,3-Specific Resin (Cat #SR2301) is an agarose resin coupled with the SiaFind™ α2,3-Specific Lectenz® and is designed for the rapid and specific enrichment of sialoglycoconjugates terminating in Neu5Acα2,3Gal from a complex sample. Specifically bound α2,3-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™ α2,3-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 2 (Cat #BA0102) for equilibration, binding, washing, and storage.

Affinity Chromatography Guide

Affinity chromatography may be performed in a disposable mini column.

Prepare 1X Binding Buffer 2 (0.025 M EPPS, 0.1 M NaCl, pH 7.5), Elution Buffer (0.025 M EPPS, 2.1 M NaCl, pH 7.5) and Regeneration Buffer (0.025 M EPPS, 0.1 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 2	Sodium Chloride (NaCl; MW=58.44)	Guanidine Hydrochloride (CH_5N_3·HCl; MW=95.53)	Ultra-pure Water (mL)
1X Binding Buffer 2 (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

1. Transfer 1 mL of fully resuspended SiaRich™ α2,3-Specific Resin into a mini-column for a packed resin volume of 500 µL.
2. Equilibrate the resin with 5 resin volumes of 1X Binding Buffer 2.
3. Load 100 to 200 µL sample prepared in 1X Binding Buffer 2. Collect flow-through if desired.
4. Wash with 5-10 resin volumes of 1X Binding Buffer 2. Collect flow-through if desired.
5. 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 α2,3-sialylated glycoconjugates may require the use of Regeneration Buffer to be eluted from the resin.*
6. Regenerate the resin with 5 resin volumes of Regeneration Buffer.
7. Rinse the resin with 5 resin volumes of 1X Binding Buffer 2, cap the tip of the column, then add another resin volume for storage. (Optional: For long-term storage, add ethanol to 20%.)
8. 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™ α2,3-Specific Resin affinity chromatography fractions may be loaded directly onto a C18 SPE column for desalting, buffer exchange, and concentration.

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