SiaFind Lectenz® Affinity Reagents

Catalog #	Description	Size	M. W.	Specificity
SP2301-1MG	α2,3-Specific Lectenz®	1 mg	77,000	α2,3-linked sialic acids
SP2301-5MG	α2,3-Specific Lectenz®	5 x 1 mg	77,000	
SP2301B-1MG	α2,3-Specific Lectenz®, Biotinylated	1 mg	78,000	

Upon arrival, store the products at -80°C until use

This product is 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

Lectenz® are a novel class of **lect**in-like, **enz**yme-derived glycan-targeting affinity reagents engineered by computationally-guided directed evolution. The reagents are highly purified recombinant proteins, each designed to bind a specific glycan structure. They have advantages over naturally occurring lectins in rapid detection and enrichment of glycoconjugates, making glycoscience simple.

SiaFind α2,3-Specific Lectenz® (Cat # SP2301 and SP2301B) is a sialic acid affinity reagent for the detection, separation, or enrichment of sialoglycans terminating in Siaα2,3Gal 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.

Each **SiaFind** Lectenz® has a molecular mass of about 77 kD and works as a monomer in a simple buffer without bivalent metal ions. They are 6xHis-tagged proteins and an anti-6xHis antibody or its conjugated form may be used as a 2° antibody for detection.

In addition to the 6xHis-tag, the biotinylated **SiaFind α2,3-Specific Lectenz®** reagent (Cat # SP2301B) can be detected using a streptavidin conjugate.

Form and Storage

The **SiaFind** reagents are supplied in Sia Lectenz® Storage Buffer (SLSB; 50 mM EPPS, 100 mM NaCl, pH 7.5). Concentration is determined by spectrophotometry using $E^{1\%}$ 12.7. They are most stable frozen at -20 to -80°C. At 4°C, they are stable for about 1 week. Avoid repeated freeze-thaw. However, aliquoting and refreezing once will not significantly reduce binding activity.

Western Blotting Guide

Use 0.1 - 1.0 µg fetuin and/or 3'-sialyllactose-BSA as positive control.

Prepare Sia Lectenz Binding Buffer (SLBB; 10 mM EPPS, 10 mM NaCl, pH 7.5). Use SLBB plus 0.1% Tween-20 (SLBBT) for membrane washing. Use SLBBT with 5% globulin free BSA for blocking.

Prepare **SiaFind** in SLBBT with 0.5% BSA: 25 µg/ml of the native reagent (Cat # SP2301), or 5 µg/ml of the biotinylated reagent (Cat # SP2301B). Incubate at room temperature for 1 h with agitation.

Incubate with a 2° probe diluted in SLBBT with 0.5% BSA, e.g. a 10,000 dilution of an anti-6xHis tag antibody-HRP conjugate for the native reagent (Cat # SP2301) or a 1 µg/ml of streptavidin-HRP solution for the biotinylated reagent (Cat # SP2301B).

Rinse membrane with SLBB before applying HRP chemiluminescent substrate for detection.

Note: **SiaFind** reagents are sensitive to salt. Titration of NaCl concentration in the binding buffer may be performed. They will work in common Western Blotting buffers, such as PBS or TBS, but the binding signal will be significantly weaker.

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