Lectin SBA Conjugates

Table 1. Contents and storage information.

Material	Amount	Storage	Stability
Lectin SBA from *Glycine max* (soybean), Alexa Fluor® conjugate	1 mg, lyophilized from 0.5 mL phosphate-bufferend saline (PBS), pH 7.2	• ≤–20˚C • Desiccate • Protect from light	When stored as directed, the lyophilized conjugate is stable for at least 1 year.
Approximate fluorescence excitation and emission maxima: see Table 2.			

Introduction

Lectins are oligomeric proteins with saccharide-binding sites that can recognize and bind particular glycoconjugates. The lectin soybean agglutinin (SBA), which is isolated from *Glycine max*, selectively binds terminal α- and β-*N*-acetylgalactosamine and galactopyranosyl residues. This lectin exists as a tetramer and has a molecular weight of approximately 120,000 daltons.[1]

Fluorescent lectins are versatile probes with diverse applications, including detection of cell surface and intracellular glycoconjugates by microscopy and flow cytometry, localization of glycoproteins in gels, precipitation of glycoproteins in solution and agglutination of specific cell types.[1] Molecular Probes® fluorescent SBA conjugates are prepared with three of our very best fluorophores. Table 2 provides a summary of peak absorption and emission wavelengths of our fluorescent *Glycine max* lectin SBA conjugates.

Table 2. Lectin SBA conjugates and spectral characteristics.

Catalog #	Conjugate	Abs *	Em *
L11272	Alexa Fluor® 488	495	519
L32462	Alexa Fluor® 594	590	617
L32463	Alexa Fluor® 647	650	668

* Approximate absorption (Abs) and emission (Em) wavelength maxima, in nm.

Guidelines for Use

Preparing the Lectin SBA Conjugate Solutions

A 2 mg/mL solution can be prepared by dissolving the contents of one vial in 0.5 mL H_2O. Solutions can be stored at 2–6°C for approximately three months. For longer storage, divide the solutions into aliquots and freeze at ≤–20°C. PROTECT FROM LIGHT. AVOID REPEATED FREEZING AND THAWING OF SOLUTIONS.

Applications and Working Concentrations

Due to the diversity of applications, please consult the literature for an appropriate working concentration. The concentrations in Table 3 are recommended starting ranges for some of the more common applications. However, because staining conditions will vary with the application, optimal concentrations should be determined empirically.

It is a good practice to centrifuge the protein conjugate solution briefly in a microcentrifuge before use; only the supernatant should then be added to the experiment. This step will eliminate any protein aggregates that may have formed during storage, thereby reducing nonspecific background staining.

Table 3. Recommended fluorescent lectin concentrations for various applications.

Application	Working Concentration
Staining glycoproteins in gels[4]	1–10 mg/mL
Staining intracellular and cell surface glycoconjugates[5,6]	5–50 µg/mL
Agglutinating cells[6]	10–250 µg/mL

References

1. Adv Immunol 34, 213 (1983); **2.** Anal Biochem 96, 208 (1979); **3.** Histochemistry 56, 265 (1978); **4.** Mol Biochem Parasitol 23, 165 (1987); **5.** Proc Natl Acad Sci USA 102,5920 (2005); **6.** Cytometry 5, 204 (1984).

Product List **Current prices may be obtained from our website or from our Customer Service Department.**

Cat #	Product Name	Unit Size
L11272	lectin SBA from Glycine max (soybean), Alexa Fluor® 488 conjugate	1 mg
L32462	lectin SBA from Glycine max (soybean), Alexa Fluor® 594 conjugate	1 mg
L32463	lectin SBA from Glycine max (soybean), Alexa Fluor® 647 conjugate	1 mg

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