FT-MS9030

FITC labeled GS-II Lectin

Product Description

Name :	**Pure *Griffonia simplicifolia* lectin (GS-II), FITC conjugated**
Catalog Number :	FP-MS9030 2 mg purified GS-I FITC / 2 ml Buffer
Absorption / Emission :	$\lambda_{exc}\backslash\lambda_{em}$ = 492 /517 nm
Purification Procedure :	Gel filtration performed after conjugation to remove free FITC
Carbohydrate Specificity :	Terminal α- or β-N-Acetylglucosamine. The specific linkage of the N-Acetylglucosamine to the subterminal carbohydrate plays an important role in lectin binding.
Inhibitory Carbohydrate :	N-Acetylglucosamine.
Activity :	5-10 µg/ml will agglutinate Tk polyagglutinable cells
Buffer :	0.01M Phosphate - 0.15M NaCl containing 0.5 mM CaCl2, pH 7.2 - 7.4. Contains 0.05%sodium azide as a preservative

Storage: Store liquid material frozen in aliquots in amber vials or covered with foil. Avoid freeze thaw cycles. Clarify by centrifugation. Protect from light and moisture.

Stability: The liquid material is stable for at least 1 year when stored frozen in aliquots with 0.05% sodium azide added as a preservative.

Directions for use

Remarks

Calcium is REQUIRED for binding.
0.5mM Calcium is the maximum concentration in Buffer that will not form a white precipitate.

Fluorescent Conjugates are extremely light sensitive.

Procedure

The following is a general Procedure and Trouble-Shooting Guide. The information is provided only for your convenience.

Tissue Sections

1. Wash and block tissue section. Do not use serum products, they contain glycoproteins which may lead to high levels of non specific background. After blocking, rinse briefly with Buffer (See reverse side).
2. Dilute **Fluorescent Labeled Lectin** to desired concentration 20-100 µg/ml using Buffer.
3. Incubate tissue section with Fluorescent Labeled Lectin for 30 minutes in a moist chamber.
4. Wash tissue section with Buffer three times.
5. Examine tissue section with Fluorescent microscope. Use appropriate filter.

Ref. M. Immbar *et. al*., (1973). *Intnl. Journal of Cancer*, **12**, 93-99

Cell Suspension

1. Wash cells with Buffer (See reverse side.)
2. Collect cells by centrifugation.
3. Dilute **Fluorescent Labeled Lectin** to 100 µg/ml using Buffer.
4. Incubate approximately $1x10^6$ cells with 1 ml diluted Fluorescent labeled Lectin for 15 minutes at room temperature or in a 37°C water bath.
5. Wash cells with Buffer three times using centrifugation.
6. Examine cells, with or without fixation with Fluorescent microscope. Use appropriate filter.

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Ref. K. Phiss. (1977). Experimental Pathology, **14**, S15

Fluorochromes must be protected from light.
Perform incubation, when practical, in a dark room or covered in foil.

Carbohydrate Inhibition

Inhibition of lectin binding may be accomplished by using one of two procedures:
A. Before incubating with **Fluorescent Labeled Lectin**, incubate section or cells with inhibitory carbohydrate for 30-60 minutes at room temperature. NOTE: *Complete inhibition mayNOT occur.*
B. Preincubate diluted **Fluorescent Labeled Lectin** with inhibitory carbohydrate for 30-60 minutes at room temperature before applying to section or cells.

TROUBLE SHOOTING GUIDE

Problem	Cause	Solution
Weak or no Staining	1. Low concentration of specific oligosaccharide on sample. 2. Low concentration of lectin conjugate. Weak or no conjugate. 3. Insufficient incubation time. 4. Photobleaching	Causes #1 - #3 a. Increase incubation time. b. Increase concentration a. Avoid exposure to light
High Background	1. Lectin conjugate is too concentrated. 2. Insufficient washing. 3. Autofluorescent sample.	a. Decrease concentration of Lectin conjugate. b. Shorten incubation times. a. Perform multiple washings and prolong washing time. a. Use fluorochrome with different excitation and emission spectrum. b. Use a different lectin conjugate (enzyme or colloidal gold).
Unexpected Staining Pattern	Multiple causes	a. Perform control reactions. b. Use other cytochemical technique to prove or disprove the findings.

References

- **Goldstein I.J.** *et al.,* Adv. Carbohydrate Chem. 35, 127 (1978)
- **Judd W.J.** *et a*l, Vox Sang, 33, 246 (1977)
- **Shankar Iyer,** P.N., *et al*, Arch. Biochem. Biophys., 177, 330 (1976)

Related / associated products and documents

See BioSciences Innovations catalogue and e-search tool.

- Lectin List (or search conjugated lectins):
- ConA-Biotin, FP-MS9690; -FITC, FP-47496A; -Cy3, FP-WT8680,
- GS-I-FITC; FP-MS9020
- PNA-FITC, FP-BV4181
- WGA-biotin, FP-MS5730; -SR101, FP-MS9540; -FITC, FP-CE8070

Ordering information

Catalog size quantities and prices may be found at www.interchim.com/
Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask : FluoProbes® / Interchim; Hotline : +33(0)4 70 03 73 06

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