FT-MS6350

# FITC labeled SNA-II Lectin

# **Product Description**

Name: Pure Sambucus nigra lectin (SNA-II), from elderberry - FITC

conjugated

Catalog Number: FP-MS6340 1 mg purified SNA-I FITC / 1 ml Buffer

**Absorption / Emission :**  $\lambda_{\text{exc}} \lambda_{\text{em}} = 492 / 517 \text{ nm}$ 

**Purification Procedure:** Gel filtration performed after conjugation to remove free FITC

Carbohydrate Specificity: GalNAc>Gal

**Inhibitory Carbohydrate :** High concentration Lactose  $> \beta$ -Galactose

**Activity:** SNA-II agglutinates animal and human erythrocytes. The lectin has a slight

preference for type B over A and type O erythrocytes.

**Buffer:** 0.01M Phosphate - 0.15M NaCl, 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

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.
- 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
- 2. Collect cells by centrifugation.
- 3. Dilute **Fluorescent Labeled Lectin** to 100 μg/ml using Buffer.
- 4. Incubate approximately 1x106 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.

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

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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 may NOT 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	<ol> <li>Low concentration of specific oligosaccharide on sample.</li> <li>Low concentration of lectin conjugate. Weak or no conjugate.</li> <li>Insufficient incubation time.</li> <li>Photobleaching</li> </ol>	Causes #1 - #3 a. Increase incubation time. b. Increase concentration  a. Avoid exposure to light
High Background	<ol> <li>Lectin conjugate is too concentrated.</li> <li>Insufficient washing.</li> <li>Autofluorescent sample.</li> </ol>	<ul> <li>a. Decrease concentration of Lectin conjugate.</li> <li>b. Shorten incubation times.</li> <li>a. Perform multiple washings and prolong washing time.</li> <li>a. Use fluorochrome with different excitation and emission spectrum.</li> <li>b. Use a different lectin conjugate (enzyme or colloidal gold).</li> </ul>
Unexpected Staining Pattern	Multiple causes	<ul><li>a. Perform control reactions.</li><li>b. Use other cytochemical technique to prove or disprove the findings.</li></ul>

# References

- Broekaert W.F. et al., Biochem. J. 221, 163-169 (1984)
- Kaifu R. et al, Carbohydr. Res., 52, 179-185 (1976)
- Peumans W.J. et al, E.J.M. (1991)

# Related / associated products and documents

See BioSciences Innovations catalogue and e-search tool.

- <u>Lectin List</u> (or search <u>conjugated lectins</u>):
- 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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