

FT-MT0220



PNA - FITC

Product Information

Name :	Pure Arachis hypogaea lectin (PNA) from peanut, FITC conjugated
Catalog Number :	FP-MT0220 1 mg
Carbohydrate Specificity:	Terminal β -Galactose.
Inhibitory Carbohydrate:	Lactose > β -Galactose.
Activity:	Less than 1 μ g/ml will agglutinate human erythrocytes neuraminidase treatment of the cells.
Buffer:	0.02M Sodium Bicarbonate, pH 9.0-9.5. Contains 0.05% sodium azide as a preservative.
Absorption / Emission :	$\lambda_{exc} \backslash \lambda_{em} = 495 / 517$ nm

Storage: Store liquid material frozen in aliquots in amber vials or covered with foil. Avoid freeze thaw cycles. Clarify by centrifugation. The liquid material is stable for at least 1 year when stored frozen in aliquots with 0.05% sodium azide added as a preservative.

FOR RESEARCH USE ONLY - NOT INTENDED FOR USE IN HUMANS OR CLINICAL DIAGNOSIS.

Directions for use

Tissue Sections

- 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).
- Dilute **Fluorescent Labeled Lectin** to desired concentration 20-100 μ g/ml using Buffer.
- Incubate tissue section with Fluorescent Labeled Lectin for 30 minutes in a moist chamber.
- Wash tissue section with Buffer three times.
- Examine tissue section with Fluorescent microscope. Use appropriate filter.

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

Cell Suspension

- Wash cells with Buffer (See reverse side.)
- Collect cells by centrifugation.
- Dilute **Fluorescent Labeled Lectin** to 100 μ g/ml using Buffer.
- Incubate approximately 1×10^6 cells with 1 ml diluted Fluorescent labeled Lectin for 15 minutes at room temperature or in a 37°C water bath.
- Wash cells with Buffer three times using centrifugation.
- Examine cells, with or without fixation with Fluorescent microscope. Use appropriate filter.

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

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

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covered in foil.

Absorption and Emission

	Absorption/Excitation Rate	Emission Max.
FITC	492 nm	517 nm
TRITC	554 nm	570 nm
Texas Red™	596 nm	615 nm

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 style="list-style-type: none"> 1. Low concentration of specific oligosaccharide on sample. 2. Low concentration of lectin conjugate. 3. Insufficient incubation time. 4. Photobleaching 	Causes #1 - #3 <ol style="list-style-type: none"> a. Increase incubation time. b. Increase concentration conjugate.
High Background	<ol style="list-style-type: none"> 1. Lectin conjugate is too concentrated. 2. Insufficient washing. 3. Autofluorescent sample. 	<ol style="list-style-type: none"> a. Decrease concentration of Lectin conjugate. b. Shorten incubation times. <ol style="list-style-type: none"> a. Perform multiple washings and prolong washing time. b. Use a different lectin conjugate (enzyme or colloidal gold).
Unexpected Staining Pattern	Multiple causes	<ol style="list-style-type: none"> a. Perform control reactions. b. Use other cytochemical technique to prove or disprove the findings.

References

- Reyes A., et al. Chitin synthase III requires Chs4p-dependent translocation of Chs3p into the plasma membrane, *J. Cell Sci.*, 120: 1998 - 2009 (2007)
- Baurand A. et al., β -Catenin Downregulation Is Required for Adaptive Cardiac Remodeling, *Circ. Res.*, 100: 1353 - 1362 (2007)

Related products

- ConA-FITC, [FP-47496A](#)
- ConA-Cy3, [FP-WT8680](#)
- ConA-Biotin, [FP-MS9690](#)
- GS-I-FITC, [FP-MS9020](#)
- PNA-FITC, [FP-BV4181](#)
- WGA-biotin, [FP-89782](#)
- WGA-SR101, [FP-MS9540](#)
- WGA-FITC, [FP-CE8070](#)

References

- Mortimer D. et al., Specific labelling by peanut agglutinin of the outer acrosomal membrane of the human spermatozoon, *J Reprod Fertil*, 81: 127. (1987)
- Lhote D., et al., Centimorgan-range one-step mapping of fertility traits using Interspecific Recombinant Congenic Mice, *Genetics*; 10.1534/genetics.107.072157 (2007)

Ordering information

Catalog size quantities and prices may be found at <http://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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