



VVA - TRITC

Product Information

Name :	Pure Vicia villosalectin (VVA) from hairy vetch, TRITC conjugated
Catalog Number :	FP- MS9410 2 mg pure VVA - TRITC / 2 ml Buffer.
$\lambda_{Exc./Em.}$:	554/570 nm
Purification procedure:	Gel filtration performed after conjugation to remove free TRITC.
Carbohydrate Specificity:	N-Acetylgalactosamine
Inhibitor Carbohydrate:	N-Acetylgalactosamine
Activity:	More than 250 $\mu\text{g/ml}$ is usually required to agglutinate type A1 cells. Less than 1 $\mu\text{g/ml}$ will agglutinate neuraminidase treated cells regardless of blood type.
Buffer:	0.01M Phosphate - 0.15M NaCl, pH 7.2 - 7.4. Contains 0.05% sodium azide as a preservative.
Conjugate:	Tetramethylrhodamine Isothiocyanate, TRITC

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.

Caution: Pokeweed may promote an allergic response in sensitive individuals. Be extremely careful when handling any of the pokeweed products.

Directions for use

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 $\mu\text{g/ml}$ 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. Imbar et. al., (1973). Intl. 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 $\mu\text{g/ml}$ using Buffer.

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4. 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.
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

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

- Other [conjugated lectins](#),

Biotin, FITC or AP conjugated, from:

Abrus Precatorius Lectin (Jequirity Bean) -APA-
 Aegopodium Podagraria Lectin (Ground Elder) -APP-
 Agaricus Bisporus Lectin (Mushroom) -ABA-
 Allium Sativum Lectin (Garlic) -ASA-
 Anguilla Anguilla Lectin (Fresh Water Eel) -AAA-
 Arachis Hypogaea Lectin (Peanut) -PNA-
 Artocarpus Integrifolia Lectin (Jackfruit) -Jacalin
 Bauhinia Purpurea Lectin (Camel's Foot Tree) -BPA-
 Bauhinia Purpurea Lectin -BPA-

- Other reagents: BSA, [UPO84170](#),
 Fluoro-Gel mounting medium, [FP-AL2561](#)

Lens Culinaris Lectin (Lentil) -LCH-
 Limax Flavus Lectin (Garden Slug) -LFA-
 Limulus Polyphemus Lectin (Horseshoe Crab) -LPA-
 Lotus Tetragonolobus Lectin (Asparagus Pea) -LOTUS-
 Lris Hybrid Lectin (Dutch Iris) -IRA-
 Lycopersicon Esculentum Lectin (Tomato) -LEA-
 Maackia Amurensis Lectin -MAA-
 Maclura Pomifera Lectin (Osage Orange) -MPA-
 Marasmius Oreades Agglutinin Lectin (Mushroom) -MOA-

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Bryonia Dioica Lectin (White Bryony)	-BDA-	Morniga G Lectin (Black Mulberry)	-MNA-G-
Calystega Sepium Lectin (Hedge Bindweed Rhizomes)	-CALSEPA-	Morniga M Lectin (Black Mulberry)	-MNA-M-
Canavalia Ensiformis Lectin (Jackbean)	-CON A-	Narcissus Pseudonarcissus Lectin (Daffodil)	-NPA-
Cancer Antennarius Lectin (California Crab)	-CCA-	Phaseolus Lunatus Lectin (Lima Bean)	-LBA-
Caragana Arborescens Lectin (Pea Tree)	-CAA-	Phaseolus Vulgaris Lectin (Red Kidney Bean)	-PHA-E-
Cicer Arietinum Lectin (Chick Pea)	-CPA-	Phaseolus Vulgaris Lectin (Red Kidney Bean)	-PHA-L-
Colchicum Autumnale Lectin (Meadow Saffron)	-CA-	Phytolacca Americana Lectin (Pokeweed)	-PWM-
Cytisus Sessilifolius Lectin (Portugal Broom)	-CSA-	Pisum Sativum Lectin (Garden Pea)	-PEA-
Datura Stramonium Lectin (Jimson Weed)	-DSA-	Polygonatum Multiflorum Lectin (Common Solomon's Seal)	-PMA-
Dioeclea Grandiflora Lectin (Legume)	-DGL-	Polyporus Squamosus Lectin (Mushroom)	-PSL-
Dolichos Biflorus Lectin (Horse Gram)	-DBA-	Ricinus Communis Lectin (Castor Bean)	-RCA-I-
Erythrina Cristagalli Lectin (Coral Tree)	-ECA-	Ricinus Communis Lectin (Castor Bean)	-RCA-II-
Euonymus Europaeus Lectin (Spindle Tree)	-EEA-	Triticum Vulgare Lectin (Wheat Germ)	-WGA-
Galanthus Nivalis Lectin (Snowdrop Bulb)	-GNA-	Tulipa Sp. Lectin (Tulip)	-TL-
Glechoma Hederacea Lectin (Ground Ivy)	-GHA-	Ulex Europaeus Lectin (Gorse)	
Glycine Max Lectin (Soybean)	-SBA-	Ulex Europaeus Lectin (Gorse)	
Griffonia Simplicifolia Lectin	-GS-I-	Urtica Dioica Lectin (Stinging Nettle)	-UDA-
Griffonia Simplicifolia Lectin	-GS-II-	Vicia Fava Lectin (Fava Bean)	-VFA-
Helix Aspersa Lectin (Garden Snail)	-HAA-	Vicia Villosa Lectin (Hairy Vetch)	-VVA-
Helix Pomatia Lectin (Edible Snail)	-HPA-	Viscum Album Lectin (Mistletoe)	-VAA-
Hippeastrum Hybrid Lectin (Amaryllis)	-HHA-	Wisteria Floribunda Lectin (Japanese Wisteria)	-WFA-

I.e. WGA-biotin, [FP-MS5730](#), WGA-ConA, [FP-MS9690](#) and ConA-FITC, [FP-47496A](#)

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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