# PRODUCT INFORMATION TRITC Labeled Lectin

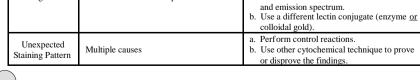
Catalog Number:	R-7801-2		
Description:	Pure Maackia amurensis lectin (MAA), TRITC conjugated.		
Lot Number:			
Protein Concentration: (Based on OD 280)	2 mg purified MAA TRITC / 2 ml Buffer.		
TRITC / Protein Ratio: (OD 550 / OD 280)			
Purification Procedure:	Gel filtration performed after conjugation to remove free TRITC.		
Carbohydrate Specificity:	Sialic acid a(2,3) Galactose.		
Inhibitory Carbohydrate:	Not inhibited by simple sugars at < 50mM. Lactose and Sialic acid will exhib some inhibitory potency at concentrations greater than 75mM. Sialyllactos $\alpha(2,6)$ is the most potent inhibitor of leukoagglutination.		
Activity:	Less than 0.5 $\mu g/ml$ will agglutinate type O human erythrocytes.		
Buffer:	0.01M Phosphate - 0.15M NaCl, pH 7.2-7.4. Contains 0.05% sodium azide as a preservative.		
Chemical Used for Conjugation:	Tetramethylrhodamine Isothiocyanate, TRITC.		
Storage:	Store liquid material frozen in aliquots in amber vials or covered with foil. Avoid freeze thaw cycles. Clarify by centrifugation.		
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.		
Caution:	Refer to the enclosed MSDS for information regarding Lectins. The aluminum seals have sharp edges and the vial itself may have cracks which can cause lacerations. Use caution when opening the vial.		
Remarks:	Fluorescent Conjugates are extremely light sensitive.		
References:	<ol> <li>Kawaguchi, T., et al. (1974) J. Biol. Chem. 254 : 2786-2792.</li> <li>Wang, WC. and Cummings, R. D. (1988) J. Biol. Chem. 263 : 4576-4585.</li> </ol>		

## General Procedure Fluorescent Labeled Lectin

The following is a general Procedure and Trouble-Shooting Guide. The information is provided only for your convenience. The success of your experiments are not guaranteed by EY Laboratories, Inc.

#### **Tissue Sections**

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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 tissu	e section with Fluorescent Labeled Lectin for	30 minutes in a moist chamber.				
4.	Wash tissue section with Buffer three times.						
5.	Examine tissu	ue section with Fluorescent microscope. Use	appropriate filter.				
	Ref. M. Imm	bar et. al., (1973). Intnl. Journal of Cancer, 12	, 93-99				
	Cell Suspension						
1.	Wash cells w	ith Buffer (See reverse side.)					
2.	Collect cells	by centrifugation.					
3.	Dilute <b>Fluorescent Labeled Lectin</b> to $100 \mu$ g/ml using Buffer.						
4.	Incubate approximately $1 \times 10^6$ cells with 1 ml diluted Fluorescent labeled Lectin for 15 minutes at room temperature or in a 37°C water bath.						
5.	Wash cells w	ith 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 Em	ission				
		Absorption/Excitation Ra					
	FIT	1	517 nm				
		ITC 554 nm	570 nm				
	Texas Red <sup>™</sup> 596 nm		615 nm				
		Carbohydrate Inhibiti	on				
Inhib	ition of lectin l	binding may be accomplished by using one of	two procedures:				
A.							
B.			nhibitory carbohydrate for 30-60 minutes at				
	room tempera	ature before applying to section or cells.					
TROUBLE SHOOTING GUIDE							
P	roblem	Cause	Solution				
		1. Low concentration of specific	Causes #1 - #3				
W	leak or no	oligosaccharide on sample.	a. Increase incubation time.				
	Staining	2. Low concentration of lectin conjugate.	b. Increase concentration conjugate.				
	Ū	<ol> <li>Insufficient incubation time.</li> <li>Photobleaching</li> </ol>	a. Avoid exposure to light.				
		1. Lectin conjugate is too concentrated.	<ul> <li>a. Decrease concentration of Lectin conjugate.</li> </ul>				
		conjugate is too concontituted.	<ul><li>b. Shorten incubation times.</li></ul>				
		2. Insufficient washing.	a. Perform multiple washings and prolong				
High			washing time.				
B	ackground	<ol><li>Autofluorescent sample.</li></ol>	a. Use fluorochrome with different excitation				





Tel: 650-342-3296 Fax: 650-342-2648 Orders: 1-800-821-0044 (Outside CA only)

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### MSDS for Fluorescent labeled Purified Proteins Continued - page 2 of 2.

## MATERIAL SAFETY DATA SHEET

Effective Date: March 31, 2006 Revision 4 Page 1 of 2

#### PRODUCT IDENTIFICATION

Purified proteins labeled with fluorescein isothiocyanate (FITC),
tetramethylrhodamine isothiocyanate (TRITC), or Texas Red a trademark of
Molecular Probes for the sulfonyl chloride derivative of sulforhodamine 101
FP-01, RP-01, TP-01, F-1102 to F-9000, R-1102 to R-9000, T-1102 to T-9000, FA-
2100 to FA-2701, RA-2100 to RA-2701, TA-2100 to TA-2701, FAF-001 to FAF-
2354, RAF-001 to RAF-2354, TAF-001 to TAF-2354, FAL-1104 to FAL-4701,
RAL-1104 to RAL-4701, TAL-1104 to TAL-4701, FA-01 to FA-013, TA-01 to
TA-013, DM1011F to DM1064F, FNP-01 to FNP-05, BA-101, BA-102, BA-612.
Protein A, Avidin (egg white), Glycosylated Bovine Serum Albumin, Lectins,
Secondary and Monoclonal Antibodies labeled with FITC, TRITC, or Texas Red®

#### EMERGENCY INFORMATION

EY Laboratories, Inc. 107 North Amphlett Blvd. San Mateo, CA 94401

**EMERGENCY PHONE:** 650-342-3296

#### HAZARDOUS COMPONENTS

Specific protein(s) as listed on the vial label. Solutions are at a concentration generally greater than 0.5mg protein/ml. Biological activity of these labeled proteins will vary. FITC, TRITC, and Texas Red® are possible carcinogens in their pure form. Compounds with similar chemical structures are known to be reactive with proteins and other biomolecules. The complete properties of the dyes after labeling have not been evaluated. These compounds should be treated as potentially hazardous. All solutions contain less than 0.05% sodium azide as a preservative.

#### HEALTH HAZARD INFORMATION

EXPOSURE LIMITS:	None established. The toxicological properties of these products have not
	been thoroughly investigated. Care should be taken when handling any of
	these materials.
EFFECTS OF	Causes localized eye, skin, or mucous membrane irritation. Some sensitive
OVEREXPOSURE:	individuals may develop a chronic allergic reaction with exposure. The
	known effects are due to the protein. No specific effects of the bound dye are known at this time.
ROUTES OF EXPOSURE:	Inhalation of powders and skin contact with liquids are the primary routes of exposure. Care should be taken to avoid the formation of aerosols when
	handling any of the solutions.

#### PHYSICAL CHARACTERISTICS

APPEARANCE: SOLUBILITY:

Powders are a light orange. Solutions will be yellow to dark purple. Powders are completely soluble in many biological buffers and water. I liquids are completely miscible in water and biological buffers.

### FIRE AND EXPLOSION HAZARDS

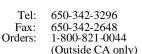
Not considered to be a pire hazard. At high concentrations the chemicals may emit toxic fumes. Such high concentrations are not normally found in a research laboratory.

EXTINGUISHING MEDIA: SPERE FIGHTING RECAUTIONS:

Dry chemical powder or CO2. Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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NOTE: Most solutions contain less than 0.05% sodium azide as a preservative. Azide may react with lead and copper plumbing to form explosive metal azides. Flush with copious amounts of water when disposing material in the sink.

#### **REACTIVITY DATA** S

STABILITY: HAZARDOUS POLYMERIZATION: INCOMPATIBILITY:		Stable. Decomposition products are not known to be hazardous.		
		Will NOT occur.		
		Alcohols, strong bases and acids, strong oxidizing agents, and heat. (Lead and copper may react with sodium azide).		
SPILL / LEAK PROCEDURES				
MATERIAL RELEASE /	Avoid contact w	vith powder or liquid. Clean up spill with a paper towel		
SPILL:		sehold bleach. Do not allow solutions to dry on		
		urfaces. Wash affected area with detergent after the area		
	has been treated			
WASTE DISPOSAL:	Incinerate, autoc	clave, or dispose of paper waste in accordance with all		
		d Federal regulations. Due to the small quantities of ed these products are generally not considered to be		

#### EMERGENCY FIRST AID PROCEDURES

May be harmful if swallowed, inhaled, or allowed to absorb through the skin. Wash contacted area with water for 15 minutes. If inhaled remove to fresh air, Report exposure to the appropriate safety official. Consult a physician if irritation occurs or if there is any indication of an allergic response, such as watering eyes, sneezing, or difficulty breathing.

environmental hazards. All of these proteins are fully biodegradable.

#### SPECIAL HANDLING PRECAUTIONS

VENTILATION:	No special ventilation is required but it is recommended to handle these reagents in a fume hood when possible.
EYE PROTECTION:	Required. Goggles or safety glasses with a side shield are recommended.
RESPIRATORY	Recommended as a safety precaution, specifically when working with
PROTECTION:	powders. An approved respirator may be required for those individuals
	already known to be sensitive to these materials.
PROTECTIVE GLOVES:	Required when handling any of these materials.

#### SPECIAL PRECAUTIONS

This material is for research and experimental application only. It is not intended for food, drug, household, agricultural, or cosmetic use. All materials should be handled only by technically qualified individuals experienced with working with potentially hazardous chemicals. The above information is correct to the best of our knowledge. The user should make independent decisions regarding completeness of the information, based on all sources available. EY Laboratories, Inc. shall not be held liable for any damage resulting from handling or contact with the above product.



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