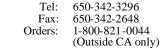
PRODUCT INFORMATION Texas Red[®] Labeled Lectin

	.		The following is a general Procedure and Trouble-Shooting Guide. The information is provided only for convenience. The success of your experiments are not guaranteed by EY Laboratories, Inc.	your	
	Catalog Number:	T-2301-2	Tissue Sections		
	Description:	Pure Arachis hypogaea lectin (PNA) from peanut, Texas Red [®] conjugated.	 Wash and block tissue section. Do not use serum products, they contain glycoproteins which may 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 µg/ml using Buffer. 		
	Lat Normhan		3. Incubate tissue section with Fluorescent Labeled Lectin for 30 minutes in a moist chamber.		
	Lot Number:		4. Wash tissue section with Buffer three times.		
			5. Examine tissue section with Fluorescent microscope. Use appropriate filter.		
	Protein Concentration:	2 mg purified PNA Texas Red [®] / 2 ml buffer.	Ref. M. Immbar et. al., (1973). Intnl. Journal of Cancer, 12, 93-99		
	(Based on OD 280)		Cell Suspension		
			1. Wash cells with Buffer (See reverse side.)		
	Texas Red [®] / Protein		2. Collect cells by centrifugation.		
	Ratio: (OD 595 / OD 280)		3. Dilute Fluorescent Labeled Lectin to 100 µg/ml using Buffer.		
	Purification Procedure:	Gel filtration performed after conjugation to remove free Texas $\operatorname{Red}^{\oplus}$.	 Incubate approximately 1x10⁶ cells with 1 ml diluted Fluorescent labeled Lectin for 15 minutes at r temperature or in a 37°C water bath. 	oom	
			Wash cells with Buffer three times using centrifugation.		
	Carbohydrate	Terminal β -Galactose.	6. Examine cells, with or without fixation with Fluorescent microscope. Use appropriate filter.		
	Specificity:		Ref. K. Phiss. (1977). Experimental Pathology, 14, S15		
	Inhibitory Carbohydrate:	Lactose > β -Galactose.	Fluorochromes must be protected from light. Perform incubation, when practical, in a dark root covered in foil.	a or	
			Absorption and Emission		
	Activity:	Less than 1 µg/ml will agglutinate human erythrocytes neuraminidase treatment of	Absorption/Excitation Rate Emission Max.		
		the cells.	FITC 492 nm 517 nm TRITC 554 nm 570 nm		
	Buffer:	0.02M Getime Discharger H0.0.0.5	Texas Red TM 596 nm 615 nm		
	Buller:	0.02M Sodium Bicarbonate, pH 9.0-9.5.	Carbahydrafa Inhikidian		
			Carbohydrate Inhibition		
	Chemical Used for	Texas Red [®] .	Inhibition of lectin binding may be accomplished by using one of two procedures:		
	Conjugation:		A. Before incubating with Fluorescent Labeled Lectin, incubate section or cells with inhib carbohydrate for 30-60 minutes at room temperature. NOTE: Complete inhibition may NOT occur.	tory	
	-			es at	
	Storage:	Store liquid material frozen in aliquots in amber vials or covered with foil. Avoid	 B. Preincubate diluted Fluorescent Labeled Lectin with inhibitory carbohydrate for 30-60 minute room temperature before applying to section or cells. 	es at	
	Storage:	Store liquid material frozen in aliquots in amber vials or covered with foil. Avoid freeze thaw cycles. Clarify by centrifugation.	B. Preincubate diluted Fluorescent Labeled Lectin with inhibitory carbohydrate for 30-60 minut room temperature before applying to section or cells.	es at	
	-	freeze thaw cycles. Clarify by centrifugation.	B. Preincubate diluted Fluorescent Labeled Lectin with inhibitory carbohydrate for 30-60 minut	es at	
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General Procedure Fluorescent Labeled Lectin

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Weeb cell	Cell Suspens	sion		
Wash cells with Buffer (See reverse side.)				
	ells by centrifugation.	D (11		
	iorescent Labeled Lectin to 100 µg/ml using			
Incubate temperatu	approximately 1x10° cells with 1 ml diluted F ire or in a 37°C water bath.	Fluorescent labeled Lectin for 15 minutes at room		
	s with Buffer three times using centrifugation			
Examine	cells, with or without fixation with Fluorescen	t microscope. Use appropriate filter.		
Ref. K. P	hiss. (1977). Experimental Pathology, 14, S15	i		
		incubation, when practical, in a dark room of		
vered in foil.				
	Absorption and E	Emission		
	Absorption/Excitation			
	FITC 492 nm TRITC 554 nm	517 nm		
		570 nm		
	Texas Red [™] 596 nm	615 nm		
	Carbohydrate In	hibition		
Before in carbohyd Preincuba	rate for 30-60 minutes at room temperature. Nate diluted Fluorescent Labeled Lectin wi	tin, incubate section or cells with inhibitory		
Before in carbohyd: Preincuba room tem	ncubating with Fluorescent Labeled Lect rate for 30-60 minutes at room temperature. N the diluted Fluorescent Labeled Lectin wi perature before applying to section or cells. TROUBLE SHOOTI	tin, incubate section or cells with inhibitory NOTE: Complete inhibition may NOT occur. th inhibitory carbohydrate for 30-60 minutes a		
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Before in carbohyd Preincuba room tem Problem Weak or no Staining High	Acubating with Fluorescent Labeled Leec rate for 30-60 minutes at room temperature. N te diluted Fluorescent Labeled Lectin wi perature before applying to section or cells. TROUBLE SHOOTI Cause 1. Low concentration of specific oligosaccharide on sample. 2. Low concentration of lectin conjugate. 3. Insufficient incubation time. 4. Photobleaching 1. Lectin conjugate is too concentrated. 2. Insufficient washing.	 tin, incubate section or cells with inhibitor, NOTE: Complete inhibition may NOT occur. It inhibitory carbohydrate for 30-60 minutes a ING GUIDE Solution Causes #1 - #3 a. Increase incubation time. b. Increase concentration conjugate. a. Avoid exposure to light. a. Decrease concentration of Lectin conjugate. b. Shorten incubation times. a. Perform mult iple washings and prolong washing time. 		
Before in carbohyd Preincuba room tem Problem Weak or no Staining High	Acubating with Fluorescent Labeled Leec rate for 30-60 minutes at room temperature. N te diluted Fluorescent Labeled Lectin wi perature before applying to section or cells. TROUBLE SHOOTI Cause 1. Low concentration of specific oligosaccharide on sample. 2. Low concentration of lectin conjugate. 3. Insufficient incubation time. 4. Photobleaching 1. Lectin conjugate is too concentrated.	 tin, incubate section or cells with inhibitory NOTE: Complete inhibition may NOT occur. It inhibitory carbohydrate for 30-60 minutes a NG GUIDE Solution Causes #1 - #3 a. Increase incubation time. b. Increase concentration conjugate. a. Avoid exposure to light. a. Decrease concentration of Lectin conjugate. b. Shorten incubation times. a. Perform mult iple washings and prolong washing time. a. Use fluorochrome with different excitation 		
Before in carbohyd Preincuba room tem Problem Weak or no Staining High	Acubating with Fluorescent Labeled Leec rate for 30-60 minutes at room temperature. N te diluted Fluorescent Labeled Lectin wi perature before applying to section or cells. TROUBLE SHOOTI Cause 1. Low concentration of specific oligosaccharide on sample. 2. Low concentration of lectin conjugate. 3. Insufficient incubation time. 4. Photobleaching 1. Lectin conjugate is too concentrated. 2. Insufficient washing.	 tin, incubate section or cells with inhibitory NOTE: Complete inhibition may NOT occur. th inhibitory carbohydrate for 30-60 minutes a NG GUIDE Solution Causes #1 - #3 a. Increase incubation time. b. Increase concentration conjugate. a. Avoid exposure to light. 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. 		
Before in carbohyd Preincuba room tem Problem Weak or no Staining High	Acubating with Fluorescent Labeled Leec rate for 30-60 minutes at room temperature. N te diluted Fluorescent Labeled Lectin wi perature before applying to section or cells. TROUBLE SHOOTI Cause 1. Low concentration of specific oligosaccharide on sample. 2. Low concentration of lectin conjugate. 3. Insufficient incubation time. 4. Photobleaching 1. Lectin conjugate is too concentrated. 2. Insufficient washing.	 tin, incubate section or cells with inhibitor. NOTE: Complete inhibition may NOT occur. th inhibitory carbohydrate for 30-60 minutes a NG GUIDE Causes #1 - #3 a. Increase incubation time. b. Increase concentration conjugate. a. Avoid exposure to light. a. Decrease concentration of Lectin conjugate. b. Shorten incubation times. a. Perform mult iple washings and prolong washing time. a. Use fluorochrome with different excitation and emission spectrum. b. Use a different lectin conjugate (enzyme or provided in the second second		
Before in carbohyd Preincuba room tem Problem Weak or no Staining High background	Acubating with Fluorescent Labeled Leec rate for 30-60 minutes at room temperature. N te diluted Fluorescent Labeled Lectin wi perature before applying to section or cells. TROUBLE SHOOTI Cause 1. Low concentration of specific oligosaccharide on sample. 2. Low concentration of lectin conjugate. 3. Insufficient incubation time. 4. Photobleaching 1. Lectin conjugate is too concentrated. 2. Insufficient washing.	 tin, incubate section or cells with inhibitory NOTE: Complete inhibition may NOT occur. It inhibitory carbohydrate for 30-60 minutes a ING GUIDE Solution Causes #1 - #3 a. Increase incubation time. b. Increase concentration conjugate. a. Avoid exposure to light. 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). 		
Before in carbohyd Preincuba room tem Problem Weak or no Staining High	Acubating with Fluorescent Labeled Leec rate for 30-60 minutes at room temperature. N te diluted Fluorescent Labeled Lectin wi perature before applying to section or cells. TROUBLE SHOOTI Cause 1. Low concentration of specific oligosaccharide on sample. 2. Low concentration of lectin conjugate. 3. Insufficient incubation time. 4. Photobleaching 1. Lectin conjugate is too concentrated. 2. Insufficient washing.	 tin, incubate section or cells with inhibitory NOTE: Complete inhibition may NOT occur. It inhibitory carbohydrate for 30-60 minutes a NG GUIDE Solution Causes #1 - #3 a. Increase incubation time. b. Increase concentration conjugate. a. Avoid exposure to light. a. Decrease concentration of Lectin conjugate. b. Shorten incubation times. a. Perform mult iple washings and prolong washing time. a. Use fluorochrome with different excitation and emission spectrum. b. Use a different lectin conjugate (enzyme or provided in the second se		



MATERIAL SAFETY DATA SHEET

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

PRODUCT IDENTIFICATION

Name:	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
Catalog	FP-01, RP-01, TP-01, F-1102 to F-9000, R-1102 to R-9000, T-1102 to T-9000, FA-
Number (s):	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.
Synonyms:	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.
	exposure. Care should be taken to avoid the formation of aerosols whe

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. Al liquids are completely miscible in water and biological buffers.

FIRE AND EXPLOSION HAZARDS

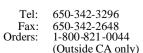
Not considered to be a bire hazard. At high concentrations the chemicals may emit toxic fumes. Such high concentrations are not normally found in a research laboratory.

EXTINGUISHING MEDIA: SPECIAL FIRE FIGHTING PRECAUTIONS:

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

Y LABORATORIES, INC.

107 North Amphlett Blvd. San Mateo, CA 94401



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

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 PROCEDU	RES	
MATERIAL RELEASE / SPILL:	soaked in hous	ith powder or liquid. Clean up spill with a paper towel schold bleach. Do not allow solutions to dry on urfaces. Wash affected area with detergent after the area with bleach.
WASTE DISPOSAL:	Local, State, an material involve	lave, or dispose of paper waste in accordance with all d Federal regulations. Due to the small quantities of d these products are generally not considered to be azards. All of these proteins are fully biodegradable.

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.

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.



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