

## PRODUCT INFORMATION

### Ferritin Labeled Lectin

**Catalog Number:** I-2401-B-1

**Description:** Pure *Griffonia simplicifolia* lectin (GS-I-B<sub>4</sub>), Ferritin conjugated.

**Lot Number:**

**Protein Concentration:** 1 mg purified GS-I-B<sub>4</sub> Ferritin / 1 ml Buffer.  
**(Based on OD 280)**

**Carbohydrate Specificity:** α-D-Galactose.

**Inhibitory Carbohydrate:** Galactose α(1,3) > methyl-α-Galactoside > Galactose > methyl-β-Galactoside > N-Acetylgalactosamine.

**Activity:** 20-30 µg/ml is required to agglutinate fresh type B blood cells. Lectin activity against all blood types increases after neuraminidase treatment of the cells.

**Buffer:** 0.01M Phosphate - 0.15M NaCl containing 0.5 mM CaCl<sub>2</sub>, pH 7.2 - 7.4. Contains 0.05% sodium azide as a preservative.

**Chemical Used for Conjugation:** Ferritin purified from Horse spleen.

**Storage:** Store liquid refrigerated at 5-8°C in aliquots. DO NOT FREEZE! This may disrupt the iron core of the Ferritin molecule.

**Stability:** The liquid material is stable for at least 1 year when stored refrigerated 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:** Calcium is REQUIRED for binding. 0.5mM Calcium is the maximum concentration in Buffer that will not form a white precipitate.

*Griffonia Simplicifolia* (GS-I) exists as a mixture of 5 isolectins. Each isolectin is a tetramer consisting of different amounts of subunits termed A and B. The subscripted number indicates the quantity of each subunit associated with the tetramer form. The GS-I B<sub>4</sub> isolectin has specificity for type B erythrocytes.

**References:**

1. Eckhardt, A. E., et al. (1982). Cancer Res. **42** : 2977-2979.
2. Judd, W. J., et al. (1978). Transfusion (Philadelphia). **18** : 274-280.
3. Maddox, D.E. et al. (1982) PNAS. **79** : 166-170.
4. Murphy, L. A. and Goldstein, I. J., J. Biol. Chem. **252** : 4739-4742, 1977.
5. Shanker Iyer, P. N., et al. (1976). Arch. Biochem. Biophys. **177** : 330-333.

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**MATERIAL SAFETY DATA SHEET**

Effective Date: March 31, 2006

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**PRODUCT IDENTIFICATION**

Name: Purified protein and D-Biotin coupled to Ferritin from horse spleen.  
 Catalog: IP-01, I-1102 to I-9000, IAF-001 to IAF-2354, IAL-1104 to IAL-4701, IA-2100 to  
 Number (s): IA-2701, BA-103, BA-119.  
 Formula: Complex polypeptides and D-Biotin coupled to Ferritin.  
 Synonyms: Protein A, Lectins, Secondary Antibodies, Avidin, and D-Biotin coupled to Ferritin isolated from horse spleen.

**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. Ferritin is considered to be tumorigenic and care should be taken to avoid skin and mucous membrane contact. Biological activity of these labeled proteins will vary. Ferritin may permanently stain lining and will stain skin temporarily. 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 OVEREXPOSURE: May cause localized eye, skin, or mucous membrane irritation. Some sensitive individuals may develop a chronic allergic reaction with exposure.  
 ROUTES OF EXPOSURE: Skin and mucous membrane contact with liquids is the primary routes of exposure. Care should be taken to avoid the formation of aerosols when handling any of the solutions.

**PHYSICAL CHARACTERISTICS**

APPEARANCE: Solutions will be dark red to brown.  
 SOLUBILITY: All liquids are completely miscible in water and biological buffers.

**FIRE AND EXPLOSION HAZARDS**

EXTINGUISHING MEDIA: Not considered to be a fire hazard.  
 Water spray or CO<sub>2</sub>.  
 SPECIAL FIRE FIGHTING PRECAUTIONS: Wear self-contained breathing apparatus and eye protection to prevent contact.

NOTE: All 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: Stable. Decomposition products are not known to be hazardous.  
 HAZARDOUS POLYMERIZATION: Will NOT occur.  
 INCOMPATIBILITY: None known. (Lead and copper may react with sodium azide).

**SPILL / LEAK PROCEDURES**

MATERIAL RELEASE / SPILL: Avoid contact with powder or liquid. Clean up spill with a paper towel soaked in household bleach. Do not allow solutions to dry on environmental surfaces. Wash affected area with detergent after the area has been treated with bleach.

WASTE DISPOSAL: Incinerate, autoclave, or dispose of paper waste in accordance with all Local, State, and Federal regulations. Due to the small quantities of material involved these products are generally not considered to be environmental hazards. 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 PROTECTION: Recommended as a safety precaution. 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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