

## Biotin labeled WGA

### Product Description

<b>Name :</b>	<b>Biotin Conjugated <i>Triticum vulgare</i> Lectin (Wheat Germ) - WGA</b>
<b>Catalog Number :</b>	FP-MS5730      1 mg purified WGA biotin / vial If lyophilized, reconstitute with Buffer to a concentration of 1mg/ml if lyophilized.
<b>Carbohydrate Specificity :</b>	(GlcNAc-β-(1,4)-GlcNAc)1-4 > β-GlcNAc > Neu5Ac.
<b>Inhibitory Carbohydrate :</b>	GlcNAc β(1,4) GlcNAc β(1,4) GlcNAc > GlcNAc β(1,4) GlcNAc >> sialic acid(Neu5Ac) >> GalNAc
<b>Activity :</b>	Less than 4mg/ml will agglutinate human type O erythrocytes. Less than 1μg/ml will agglutinate neuraminidase treated erythrocytes
<b>Buffer :</b>	0.01M Phosphate - 0.15M NaCl, pH 7.2 - 7.4
<b>Chemical Used for Conjugation:</b>	Biotinyl N - hydroxysuccinimide ester (BNOHSE).

**Storage:** Store lyophilized powder refrigerated at 5-8°C or frozen. Store liquid frozen in aliquots. Avoid freeze-thaw cycles.

**Stability:** The lyophilized material is stable for several years when stored frozen. After reconstitution the material is stable for at least 1 year when stored frozen in aliquots with 0.05% sodium azide added as a preservative.

### Directions for use

*The following is a general Procedure and Trouble-Shooting Guide. The information is provided only for your convenience.*

#### Procedure

1. Wash and block tissue section or blot. It is recommended that 1% purified Bovine Serum Albumin (BSA) or defatted milk powder be used for blocking to prevent nonspecific binding. Do not use serum products, they contain glycoproteins which may lead to high levels of non specific background. After blocking, rinse briefly with recommended Buffer.
2. Dilute **Biotin Labeled Lectin** to a concentration of 5-50 μg/ml using recommended Buffer. Incubate section or blot for 30-90 minutes at room temperature in a moist chamber. Slightly longer incubation times may be required if incubation is done at 2-8°C. Rinse 3 times, 5 minutes *each* time with recommended Buffer.
3. Dilute and incubate **Avidin Conjugate** according to manufacturer directions.

**Notes:** Inhibition of lectin binding may be accomplished by using one of two procedures:

A. Before proceeding to **Step #3** incubate lectin treated section or blot with inhibitory carbohydrate for 30-60 minutes at room temperature. NOTE: Complete inhibition may not occur.

B. Preincubate diluted **Biotin Labeled Lectin** with inhibitory carbohydrate for 30-60 minutes at room temperature before applying to section or blot.

## TROUBLE SHOOTING GUIDE

Problem	Cause	Solution
Weak or no Staining	<ol style="list-style-type: none"> <li>1. Low concentration of specific oligosaccharide on sample.</li> <li>2. Low concentration of lectin conjugate.</li> <li>3. Low concentration of avidin conjugate.</li> <li>4. Insufficient incubation time.</li> <li>5. Inappropriate treatment of sample prior to labeling.</li> </ol>	Causes #1 - #4 a. Increase incubation time b. Increase concentration of sample (on blot) lectin conjugate and/or avidin conjugate. a. Treat section or blot with a different blocking reagent.
High Background	<ol style="list-style-type: none"> <li>1. Lectin conjugate and/or avidin conjugate is too concentrated.</li> <li>2. Insufficient washing.</li> <li>3. Insufficient blocking.</li> <li>4. Sample contains endogenous enzymatic activity.</li> </ol>	a. Decrease concentration of respective reagents. b. Shorten incubation times. a. Perform multiple washings and prolong washing time. a. Treat section or blot with a different blocking reagent. a. Determine if sample contains activity Determine if sample contains activity in the absence of the avidin conjugate.
Unexpected Staining Pattern	Multiple causes	a. Perform control reactions b. Use other cytochemical technique to prove or disprove the findings.

## References

- Peter B.P. *et al.*, Biochemistry. **18**:5505-5511 (1979)
- Lotan R. *et al.*, Biochem. Biophys. Res. Comm., **62**:144-150 (1975)
- Ebisu S. *et al.*, Carbohydrate Res. **58** : 187-191 (1977)
- Watanabe K. *et al.*, FEBS Lett. **37** : 317-320 (1973)
- Yamamoto K. *et al.*, Biochemistry **20**:5894-5899 (1981)

## Related / associated products and documents

See [BioSciences Innovations catalogue](#) and [e-search tool](#).

- [Lectin List](#) (or search [conjugated lectins](#)):
- ConA-Biotin, [FP-MS9690](#); -FITC, [FP-47496A](#);
- -Cy3, [FP-WT8680](#),
- GS-I-FITC; [FP-MS9020](#)
- PNA-FITC, [FP-BV4181](#)
- WGA-biotin, [FP-MS5730](#); -SR101, [FP-MS9540](#); -FITC, [FP-CE8070](#)

## Ordering information

[Catalog size quantities and prices may be found at 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

**Disclaimer :** Materials from FluoProbes® are sold **for research use only**, and are not intended for food, drug, household, or cosmetic use. FluoProbes® is not liable for any damage resulting from handling or contact with this product.