

# ActiveLectins™

05-0102 *Triticum vulgare* lectin (WGA)

## Product description

Lectins are proteins with carbohydrate binding properties found in all kingdoms of life. Their specific affinity towards sugar molecules on cell surfaces, make them useful in several different biological applications.

*Triticum vulgare* lectin or wheat germ agglutinin (WGA) is isolated from *Triticum vulgare* (wheat) and purified by affinity chromatography. WGA is a dimer with a molecular weight of 36 kDa, which selectively binds to N-Acetyl glucosamine (GlcNAc) as well as to N-acetylneuraminic acid (sialic acid) residues of glycoproteins and glycolipids (1).

It agglutinates erythrocytes and most types of malignant cells, and it also binds to certain cell surface receptors involved in immune responses and cell signalling (2).

Medicago's WGA is supplied as a white to off-white lyophilized powder from a volatile buffer (essential salt-free) with no preservatives added. The purity of WGA is determined with size exclusion chromatography (SEC). The product is for laboratory use only.

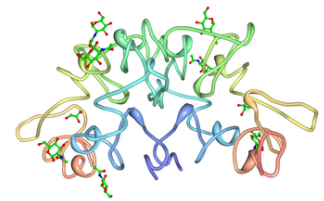


## Applications

Studies of glycoproteins and glycolipids  
Purification of membrane proteins  
Affinity chromatography

## Benefits

Agglutinates erythrocytes and most types of malignant cells  
Not blood group specific  
Binds specifically to N-acetylglucosamine and N-acetylneuraminic acid residues  
Long shelf life



Crystal structure of *Triticum vulgare* lectin (WGA) (3)

## Directions for use

The lectin is soluble in 0.9 % NaCl and the solution can be stored frozen in working aliquots for up to 12 months. Avoid repetitive freezing and thawing. Storage at pH 8.6-8.8 may cause precipitation.

## Shipping and storage

The product is shipped under refrigerated conditions. Lyophilized powder is stable for five years from the date of manufacture when stored below -18°C.

Specification	<i>Triticum vulgare</i> lectin (WGA)	Order information
Activity	Agglutinates erythrocytes and most types of malignant cells	Article number
Appearance	White to off-white powder or flocculent solid	05-0102-10mg
Binding specificity	N-Acetyl-D-Glucoseamine	05-0102-100mg
Molecular weight	36 kDa	05-0102-X*
Shelf life	Five years when stored at ≤-18°C	
Solubility	Dissolves in 0.9% NaCl (1mg/ml).	
Source	Wheat germ	*custom

## Certifications

Medicago's laboratories and manufacturing facility in Uppsala are ISO 9001:2015 and ISO 14001 certified.

Each stage of the manufacturing process is controlled and monitored by strict quality control procedures, ensuring the highest possible quality and lot to-lot reproducibility.

- (1) Liener, I. E., et al. (1986). The lectins: Properties, functions... Academic Press.
- (2) Johnson, R. J., et al. (1992). Wheat germ agglutinin inhibits... J. Leukoc. Biol., 52(1), 3-10.
- (3) Schwefel, D., et al. (2010). Structural basis of multivalent... J. Am. Chem. Soc., 132(25), 8704-8719.

