


Lectin Information Sheet

WGA <i>Triticum vulgaris</i> Agglutinin	
WGA	Code : J120 Pkg. : 5mg
WGA–Biotin	Code : J220 Pkg. : 1mg
WGA–Agarose	Code : J320 Pkg. : 2mL
Oligin	<i>Triticum Vulgaris</i> (wheat germ)
Sugar Specificity	D-GlcNAc ^{1), 2)} , NeuAc ³⁾
Oligosaccharide Specificity	GlcNAcβ1-4GlcNAcβ1-4GlcNAc ³⁾ GlcNAcβ1-4GlcNAc ³⁾
Specific Oligosaccharides	 <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;"> <ul style="list-style-type: none"> ■ Glc ■ Man ■ Gal ■ GlcNAc ■ GalNAc ■ L-Fuc ■ Xyl </div> <div style="width: 45%;"> <ul style="list-style-type: none"> ■ Neu5NAc ■ Neu5NGc ■ GalA — α-linkage — β-linkage </div> </div>
Hemagglutinating Activity	Yes
Mitogen Activity	No
Blood Specificity	Non-specific
WGA Iso-lectin WGA1, Isolectin A, WGA-A	
Molecular Weight	21,239Da [This is the MW of the unprocessed precursor]
Amino Acids Residue	212A.A. [This is the length of the unprocessed precursor]
Gene length	mRNA: 998bp ⁴⁾
Subunit	homodimer , u-shaped
Family	Chitin-binding type-1 domein
Accession No.(UniProtKB)	P10968
PDB ID (3D Structure)	1WGC (3'Sialyllactose) ³⁾ 、2CWG (SialylT-antigen) ⁵⁾ 7WGA ³⁾
Metallic ion	None
Glycosylation Site	None
WGA Iso-lectin II WGA2, Isolectin D, WGA-B	
Molecular Weight	21,356Da [This is the MW of the unprocessed precursor]
Amino Acids Residue	213A.A. [This is the length of the unprocessed precursor]
Gene length	mRNA: 998bp ⁴⁾
Subunit	homodimer , u-shaped
Family	Chitin-binding type-1 domein

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Accession No.(UniProtKB)	P02876
PDB ID (3D Structure)	2WGC (3'Sialyllactose) ³⁾ 、9WGA ³⁾
Metallic ion	None
Glycosylation Site	None
WGA Isolectin III WGA3 (Fragment)	
Molecular Weight	18,756Da [This is the MW of the unprocessed precursor]
Amino Acids Residue	186A.A. [This is the length of the unprocessed precursor]
Gene length	mRNA: 898bp ⁶⁾
Subunit	homodimer , u-shaped ⁷⁾
Family	Chitin-binding type-1 domein
Accession No.(UniProtKB)	P10969
PDB ID (3D Structure)	1K7T (GlcNAc β 1-6 Gal) ⁸⁾ , 1K7U (GlcNAc β 1-4GlcNAc) ⁸⁾ 1K7V (GlcNAc β 1-6Gal β 1-4Glc) ⁸⁾ , 1WGT ⁷⁾
Metallic ion	None
Glycosylation Site	None

Reference

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- 7) Harata K, Nagahora H, Jigami Y., *Acta Crystallogr D Biol Crystallogr.*, (1995), 51,1013
- 8) Muraki M, Ishimura M, Harata K., *Biochim Biophys Acta.*, (2002), 1569, 10