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GALANTHUS NIVALIS LECTIN (GNL), AGAROSE BOUND

SKU: AL-1243-5

DESCRIPTION

Agarose bound *Galanthus nivalis* lectin is prepared using our affinity-purified lectins. *Galanthus nivalis* lectin, unlike most mannose-specific lectins, is not a metalloprotein and does not require Ca^{++} or Mn^{++} for binding. Binding seems to be preferentially directed toward structures containing (α-1,3) mannose residues.

In contrast to most mannose-binding lectins, GNL will not bind α-linked glucose. Reports indicate that this lectin binds rat and mouse IgM but not IgG. The only protein from human serum reported to bind to this lectin is α2-macroglobulin. GNL binds to many viral glycoproteins.

Features:

- Bead diameter ranges in size from 45-165 microns
- Matrix is stable in solutions at pH 3-11 as well as many organic solvents
- Immobilized lectins are prepared using affinity purified lectins
- Covalent attachment preserves lectin activity and minimizes conformational changes that

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might result in nonspecific or hydrophobic interactions
• Hydrophilic spacer arm is inserted between the lectin and the matrix
• Conjugated proteins are not leached off the beads by Tris or other routinely used buffers
• No residual charges present after conjugation. This minimizes non-specific binding to the matrix
• Product supplied as a 1:1 suspension in buffer
• 3 mg lectin/ml gel
• Inhibiting/Eluting Sugar: 100 mM – 200 mM α-methylmannoside or Glycoprotein Eluting Solution (ES-1100)

SPECIFICATIONS

Molecular Weight	50
Extinction Coefficient	1.9
Formulation	10 mM HEPES, pH 7.5, 0.15 M NaCl, 0.1 mM CaCl2, 0.01 mM MnCl2, 20 mM mannose, 0.08% sodium azide
Inhibiting or Eluting Sugar	a-methyl-mannoside
Label Modifier Type	Lectins
Unit Size	5 ml
Storage Instructions	2-8 °C DO NOT FREEZE
Sugar Specificity	Terminal Manα1−6 and terminal Manα1−3
Usage Summary	Wash gel thoroughly with buffer before use to remove sugar added to stabilize the lectin. Recommended product for eluting glycoconjugates bound to this agarose-lectin: Glycoprotein Eluting Solution, Cat. No. ES-1100. Alternatively, 0.1 M α methyl mannoside can be used.For those glycoconjugates having a very high affinity for GNL, it may be necessary to lower the pH of the eluting sugar solution to pH 4.0 with acetic acid and increase the concentration of the α methyl mannoside to 0.5 M. After use, wash the gel with several column volumes of buffered saline, then resuspend gel in buffered saline containing 0.08% sodium azide for storage.
Applications	Glycobiology, Affinity Chromatography
Conjugate	Agarose

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TECHNICAL INFORMATION

Our coupling method provides several advantages over the traditional cyanogen bromide procedure:

- Maximum carbohydrate binding activity of the coupled lectins is retained
- Linkage is stable over a range of pH values
- Conjugated proteins are not leached off the beads by Tris or other routinely used buffers
- No residual charges are present after conjugation. This minimizes non-specific binding to the matrix

Our agarose bound lectins are supplied at a constant concentration of lectin per ml of settled beads. The concentration for each lectin is selected to achieve the highest glycoconjugate binding capacity per mg of lectin present in the beads. Each lot is tested for its binding capacity using glycoproteins known to bind the lectin. This provides a guideline for the user and assures the quality of our agarose bound lectins.

Inhibiting/Eluting Sugar: 100 mM – 200 mM α-methylmannoside

CITATIONS

DOCUMENTS

- Safety Data Sheet
- Lectins in Histochemistry, ELISA, and Western Blot Applications
- Download CoA
- Datasheet

GALLERY IMAGES

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