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JACALIN, AGAROSE BOUND

SKU: AL-1153-10



DESCRIPTION

Agarose bound Jacalin is prepared using our affinity-purified lectins. Jacalin is a lectin composed of four subunits of approximately 16 kDa each. This lectin appears to bind only *O*-glycosidically linked oligosaccharides, preferring the structure galactosyl (β-1,3) *N*-acetylgalactosamine. This structure (the T-antigen) is the oligosaccharide to which peanut agglutinin (PNA) binds. However, unlike PNA, Jacalin will bind a mono- or desialylated form of this structure. This lectin has been used to purify human IgA. The specificity of this lectin also affords the opportunity to localize or isolate glycoproteins with *O*-glycosidically linked oligosaccharide side chains.

Features:

• Matrix is heat stable, cross-linked 4% agarose beads with a molecular exlusion of about 2×10^7 daltons
• 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

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• Product supplied as a 1:1 suspension in buffer

SPECIFICATIONS

Molecular Weight	66
Extinction Coefficient	1.5
Formulation	10 mM HEPES, pH 7.5, 0.15 M NaCl, 0.1 mM CaCl2, 20 mM galactose, 20 mM lactose, 0.08% sodium azide
Inhibiting or Eluting Sugar	Galactose
Label Modifier Type	Lectins
Unit Size	10 ml
Storage Instructions	2-8 °C DO NOT FREEZE
Sugar Specificity	Core 1 and core 3 O-glycans
Usage Summary	Wash gel thoroughly with buffer before use to remove sugar added to stabilize the lectin. Note:To optimize elution of glycoproteins, wash the gel with 10 column volumes of 175 mM TRIS, pH 7.5, before use.Glycoproteins should be applied in this buffer. Recommended product for eluting glycoconjugates bound to this agarose-lectin: Glycoprotein Eluting Solution, Cat. No. ES-2100. Alternatively, 0.1 M melibiose or 0.8 M galactose in 175 mM TRIS, pH 7.5 can be used.Use of other buffers may result in a reduction in yield of eluted glycoproteins. 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

TECHNICAL INFORMATION

Agarose bound* Jacalin is prepared using our affinity-purified lectins. Heat stable, cross-linked 4% agarose beads with a molecular weight exclusion limit of about 2×10^7 daltons are used as the solid-phase matrix to which the lectins are covalently coupled. The attachment of the lectins to the beads is carefully controlled to preserve lectin activity and minimize conformational

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changes of the bound lectins that might result in nonspecific ionic or hydrophobic interactions. The technique we have developed to couple lectins to agarose beads inserts a hydrophilic spacer arm between the lectin and the matrix.

This 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: 800 mM galactose or 100 mM melibiose or Glycoprotein Eluting Solution (ES-2100)

*4 mg lectin/ml gel

CITATIONS

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DOCUMENTS

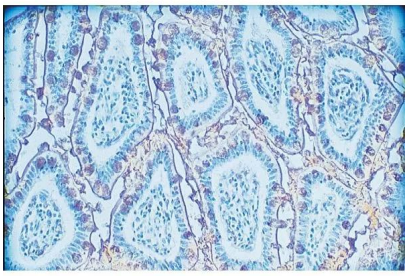
- Safety Data Sheet
- Lectins in Histochemistry, ELISA, and Western Blot Applications
- Download CoA
- Datasheet

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