www.vectorlabs.com
Email: customerservice@vectorlabs.com
Telephone: (650) 697-3600

CONCANAVALIN A (CON A), AGAROSE BOUND

SKU: AL-1003



DESCRIPTION

Agarose bound Con A is prepared using our affinity-purified lectins. Con A recognizes α-linked mannose present as part of a core oligosaccharide in many serum and membrane glycoproteins. At neutral and alkaline pH, Con A exists as a tetramer of four identical subunits; below pH 5.6, Con A dissociates into active dimers of 52 kDa. Acetylation, succinylation, or other derivatizations can also produce stable forms with dimeric structures. (See succinylated Con A). Nicks in the sequence are often present in the purest preparations due to hydrolytic damage within the seeds.

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 might result in nonspecific or hydrophobic interactions

For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

• 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

SPECIFICATIONS

Molecular Weight	104
Extinction Coefficient	1.2
Formulation	10 mM HEPES, pH 7.5, 0.15 M NaCl, 0.1 mM CaCl2, 0.01 mM MnCl2, 20 mM glucose, 0.08% sodium azide
Inhibiting or Eluting Sugar	Mixture of a-methyl-mannoside & a-methyl-glucoside
Label Modifier Type	Lectins
Unit Size	10 ml, 100 ml
Storage Instructions	2-8 °C DO NOT FREEZE
Sugar Specificity	Terminal α-mannose (Man3-Man9), and biantennary N-glycans
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, a 0.2 M α-methyl mannoside/0.2 M α-methyl glucoside mixture can be used. 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.
Conjugate	Agarose

TECHNICAL INFORMATION

Con A requires calcium or manganese ions at each of its four saccharide binding sites. Although these divalent metal ions are bound tightly to the polypeptide structure, buffers which can bind calcium (such as phosphate) generally should be avoided in diluting Con A, since a gradual loss in activity may occur.

Agarose bound* Con A is prepared using our affinity-purified lectins. Heat stable, cross-linked

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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.

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

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: mixture of 200 mM α-methylmannoside/200 mM α-methylglucoside or Glycoprotein Eluting Solution (ES-1100)

*6 mg lectin/ml gel

CITATIONS

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DOCUMENTS

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

GALLERY IMAGES

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