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# ALEURIA AURANTIA LECTIN (AAL), AGAROSE BOUND

**SKU:** AL-1393-2




## DESCRIPTION

**Features:**

• Matrix is heat stable, cross-linked 4% agarose beads with a molecular exlusion of about $2\times10^{7}$ 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
• Covalent attachment preserves lectin activity and minimizes conformational changes that 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

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- 2 mg lectin/ml gel
- Inhibiting/Eluting Sugar: 100 mM L-fucose or Glycoprotein Eluting Solution (ES-3100)

# SPECIFICATIONS

| | |
|---|---|
| **Molecular Weight** | 72 |
| **Extinction Coefficient** | 2.97 |
| **Formulation** | 10 mM HEPES, pH 7.5, 0.15 M NaCl, 10 mM fucose, 0.08% sodium azide |
| **Inhibiting or Eluting Sugar** | L-Fucose |
| **Label Modifier Type** | Lectins |
| **Unit Size** | 2 ml |
| **Storage Instructions** | 2-8 °C DO NOT FREEZE |
| **Sugar Specificity** | α-linked fucose |
| **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-3100. Alternatively, 100 mM L-fucose in buffered saline 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. |
| **Applications** | Glycobiology, Affinity Chromatography |
| **Conjugate** | Agarose |

# TECHNICAL INFORMATION

This lectin is a dimer of two identical subunits of about 36 kDa each. Unlike *Ulex europaeus* and *Lotus tetragonolobus* lectins which prefer (α -1,2) linked fucose residues, *Aleuria aurantia* lectin binds preferentially to fucose linked (α -1,6) to *N*-acetylglucosamine or to fucose linked (α -1,3) to *N*-acetyllactosamine related structures. AAL also reversibly binds fucose attached to nucleic acids

Agarose bound* *Aleuria Aurantia* lectin is prepared using our affinity-purified lectins. Heat

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stable, cross-linked 4% agarose beads with a molecular weight exclusion limit of about $2\times10^7$ 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 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: 100 mM L-fucose

*2 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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# GALLERY IMAGES




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