INSTRUCTIONS

Immobilized Jacalin

20395

Number | Description
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20395 | Immobilized Jacalin, 5 ml, supplied as 50% gel slurry containing 0.02% sodium azide

**Binding Capacity:** 1-3 mg human IgA/ml of gel

**Loading:** ~4.5 mg jacalin/ml of gel

**Support:** Cross-linked 6% beaded agarose

**Storage:** Upon receipt store product at 4°C. Product is shipped at ambient temperature. Do not freeze product.

**Introduction**

Jacalin (40 kDa) is an α-D-galactose binding lectin extracted from jack-fruit (*Artocarpus integrifolia*) seeds. This lectin is a glycoprotein composed of four identical subunits. Immobilized Jacalin is effective for purifying human serum, colostrum and secretory IgA. Jacalin also binds IgD.

**Procedure for Human IgA Purification**

**A. Additional Materials Required**

- Phosphate-buffered Saline (PBS): 0.1 M sodium phosphate, 0.15 M NaCl, pH 7.4 (Product No. 28372)
- Elution Buffer: 0.1 M melibiose or 0.1 M α-D-galactose in PBS
- Disposable column such as the Disposable Column Trial Pack (Product No. 29925) that contains two each of three column sizes (i.e., 0.5-5 ml, 1-5 ml and 2-10 ml bed volumes). Alternatively, use a spin column (e.g., Handee™ Mini-Spin Columns for 20-400 µl bed volumes; Product No. 69705), or purify by batch method.

**B. Method**

1. Equilibrate the Immobilized Jacalin to room temperature.
2. Pack a column with the gel slurry according to the instructions provided with the columns.
3. Equilibrate the column with at least five column volumes of PBS.
4. Mix human serum 1:1 with PBS and add it to the column.
5. Wash column with five column volumes of PBS or until baseline is reached using absorbance at 280 nm to measure flow-through.
6. To recover the bound IgA, add Elution Buffer to the column and collect fractions in separate test tubes. Monitor the absorbance at 280 nm of each fraction to determine baseline.
7. Buffer exchange the sample into PBS using a gel filtration/desalting column to remove the melibiose or galactose.
8. Regenerate column by washing with 20 column volumes of PBS. Store the column in ultrapure water containing 0.02% sodium azide.
Related Pierce Products

23225    BCA™ Protein Assay Kit, sufficient to perform 500 standard tube assays
28372    BupH™ Phosphate Buffered Saline Packs, 40 packs
66382    Slide-A-Lyzer® Dialysis Cassette Kit, 10 dialysis cassettes, for 0.5-3.0 ml samples
66528    Slide-A-Lyzer® Concentrating Solution, 200 ml
89884    iCON™ Concentrator 7 ml/9K, 25 devices
89886    iCON™ Concentrator 7 ml/20K, 25 devices
89882    Zeba™ Desalt Spin Columns, 0.5 ml, 25 columns, for 30-120 µl samples
89890    Zeba™ Desalt Spin Columns, 2 ml, 25 columns, for 200-700 µl samples
89892    Zeba™ Desalt Spin Columns, 5 ml, 25 columns, for 500-2,000 µl samples
89894    Zeba™ Desalt Spin Columns, 10 ml, 25 columns, for 700-4,000 µl samples

References


iCON™ Technology is protected by US Patent 6,269,957, and 6,357,601.
Slide-A-Lyzer® Dialysis Cassette Technology is protected by U.S. Patent # 5,503,741 and other patent pending.
BCA™ Technology is protected by U.S. Patent # 4,839,295.
Current versions of product instructions are available at www.piercenet.com. For a faxed copy, call 800-874-3723 or contact your local distributor.