Immobilized Jacalin

**Number** 20395

**Description**

20395  
**Immobilized Jacalin**, 5mL, supplied as 50% gel slurry containing 0.02% sodium azide  
Binding Capacity: 1-3mg human IgA/mL of gel  
Loading: ~4.5mg jacalin/mL of gel  
Support: Crosslinked 6% beaded agarose

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

**Introduction**

Jacalin (40kDa) is an α-D-galactose binding lectin extracted from jack-fruit (*Artocarpus integrifolia*) seeds. This lectin is a glycoprotein composed of four identical subunits. Thermo Scientific 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): 0.1M sodium phosphate, 0.15M NaCl, pH 7.4 (Product No. 28372)
- Elution Buffer: 0.1M melibiose or 0.1M 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., 0.5-5mL, 1-5mL and 2-10mL bed volumes). Alternatively, use a spin column (e.g., Thermo Scientific Pierce Spin Columns for 20-400µL 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 280nm 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 280nm 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 Thermo Scientific Products

- **23225** Pierce BCA Protein Assay Kit
- **28372** BupH™ Phosphate Buffered Saline Packs, 40 packs
- **66382** Slide-A-Lyzer® Dialysis Cassette Kit, 10K MWCO, 3mL
- **66528** Slide-A-Lyzer Concentrating Solution, 200mL
- **89884A** Pierce Protein Concentrators, 9K MWCO, 7mL, 25/pkg
- **89886A** Pierce Protein Concentrator, 20K MWCO, 7mL, 25/pkg
- **89882** Zeba™ Spin Desalting Columns, 7K MWCO, 0.5mL, 25/pkg
- **89890** Zeba Spin Desalting Columns, 7K MWCO, 2mL, 25/pkg
- **89892** Zeba Spin Desalting Columns, 7K MWCO, 5mL, 25/pkg
- **89894** Zeba Spin Desalting Columns, 7K MWCO, 10mL, 25/pkg

General References


This product (“Product”) is warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Product documentation, specifications and/or accompanying package inserts (“Documentation”) and to be free from defects in material and workmanship. Unless otherwise expressly authorized in writing, Products are supplied for research use only. No claim of suitability for use in applications regulated by FDA is made. The warranty herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the original purchaser of the Product (“Buyer”).

No other warranties, express or implied, are granted, including without limitation, implied warranties of merchantability, fitness for any particular purpose, or non infringement. Buyer’s exclusive remedy for non-conforming Products during the warranty period is limited to replacement of or refund for the non-conforming Product(s).

There is no obligation to replace Products as the result of (i) accident, disaster or event of force majeure, (ii) misuse, fault or negligence of or by Buyer, (iii) use of the Products in a manner for which they were not designed, or (iv) improper storage and handling of the Products.

Current product instructions are available at [www.thermoscientific.com/pierce](http://www.thermoscientific.com/pierce). For a faxed copy, call 800-874-3723 or contact your local distributor.

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