



Recombinant IB4 RECOMBINANT PROTEIN

recombinant B4 lectin

Catalog Number: PR-02
Quantity: 500 micrograms
Format: PBS (0.14 M Sodium Chloride; 0.003 M Potassium Chloride; 0.002 M Potassium Phosphate; 0.01 M Sodium Phosphate; pH 7.4), no preservative. Sterile-filtered.
Host: *E. coli*

Background: Isolectin B4 (IB4) is one of a family of five alpha-D-galactose-binding lectins from *Griffonia (Bandeiraea) simplicifolia*. These isolectins are tetrameric structures, consisting of various combinations of A and B subunits. Recombinant IB4*, unlike the native form, can have no contamination from the A subunit. IB4 has been used to label primary sensory afferent terminals in the rat dorsal horn, inhibit ascites tumor cell growth, label small-diameter trigeminal ganglion neurons, and to agglutinate B-type red blood cells.
 * patent pending

Specificity & Preparation: This recombinant protein binds terminal alpha-D-galactose groups. Recombinant IB4 was expressed in *E. coli* and purified using affinity chromatography. This product is routinely tested by coomassie stain of an SDS-PAGE gel and agglutination assay.

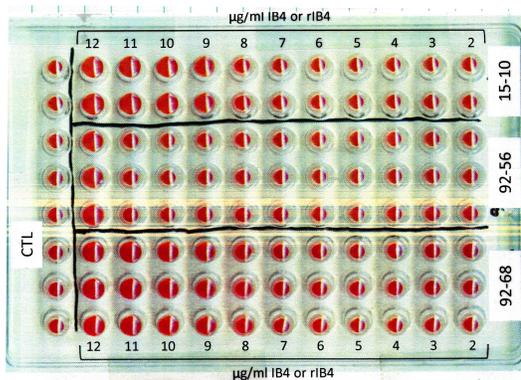
Usage: Applications include red blood cell (RBC) agglutination (ATS in-house, 8 $\mu\text{g/ml}$ for B-type RBC's; does not agglutinate A-type RBC's at 100 $\mu\text{g/ml}$).

Storage: Store the material at -20°C for one year. Avoid repeated freezing and thawing. Upon thawing, the solution may have crystals; a 2-5 minute incubation in a 37°C water bath will solubilize the protein. Gently spin down material 5-10 seconds in a microfuge before use.



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Native and recombinant IB4 were added to the plate and diluted across the plate, with a final volume of 50 μl per well. Fixed B-type RBC's were added to a V-bottom plate in 50 μl volumes, and the plate was incubated for 1 hour at room temperature. Agglutination is demonstrated by a diffuse pellet across the bottom of the well. Non-agglutinated cells form a discrete pellet at the bottom of the well.