

Jacalin / Agarose

IgA1 binding protein

Catalog # gel-jac-2
gel-jac-5

For research use only

Version # 09F10-MM

PRODUCT INFORMATION

Content:

- 2 ml gel-jac-2
- 5 ml gel-jac-5

Storage and stability:

- Jacalin / Agarose is provided as a 50% v/v gel slurry containing 0.08% w/v sodium azide. Product is shipped at ambient temperature. Store at 4°C. DO NOT FREEZE.
- Jacalin / Agarose is stable at least 12 months when properly stored.

DESCRIPTION

Jacalin is an a D-galactose binding lectin extracted from jack-fruit seeds (*Artocarpus integrifolia*). Jacalin immobilized on supports such as agarose is useful for the purification of human serum or secretory IgA^{1,2}. IgA can be separated from human IgG and IgM in human serum or colostrums using immobilized Jacalin. This support is also useful for removing contaminating IgA from IgG samples. Additionally, Jacalin binds IgD¹. Jacalin can also be used to separate IgA1 subclass from IgA2². Care needs to be taken when purifying antibodies produced in the presence of bovine serum as Jacalin will bind bovine glycoproteins, such as fetuin, which may interfere with the purity of the eluted antibody.

Jacalin /Agarose has a binding capacity is 1-3 mg of human IgA1 per ml of gel.

1. Aucouturier P. *et al.*, 1998. Jacalin, the human IgA1 and IgD precipitating lectin, also binds IgA2 of both allotypes. *J Immunol Meth* 113:185-191.
2. Gregory RL. *et al.*, 1987. Separation of human IgA1 and IgA2 using jacalin-agarose chromatography. *J Immunol Meth* 99:101-106.

ANTIBODY	JACALIN BINDING
Human κ light chain	-
Human λ light chain	-
Human IgA1	++++
Human IgA2	+/-
Human IgG	-
Human IgD	+++
Mouse IgA	-
Rat IgA	-
Rabbit IgA	+
Cow IgA	-

RELATED PRODUCTS

Product	Catalog code
pFUSE-CLlg-hk	pfuse-hclk
pFUSE-CLlg-mk	pfuse-mclk
pFUSE-CHlg-hG1	pfuse-hchg1
pFUSE-CHlg-hG2	pfuse-hchg2
pFUSE-CHlg-hG3	pfuse-hchg3
pFUSE-CHlg-hG4	pfuse-hchg4
pFUSE-CHlg-mG1	pfuse-mchg1
pFUSE-CHlg-mG2a	pfuse-mchg2a
pFUSE-CHlg-mG2b	pfuse-mchg2b
pFUSE-CHlg-mG3	pfuse-mchg3
Goat F(ab') ₂ anti-human IgA	fab-iga
Goat anti-human IgA -HRP	hrp-iga
Human IgA	ctrl-iga
Protein L / Agarose	gel-protl-2
SSL7 / Agarose	gel-ssl-2

TECHNICAL SUPPORT

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METHOD

Purification of immunoglobulins using immobilized Jacalin / Agarose

Buffers:

- Equilibration and Wash Buffer: 10 mM sodium phosphate, 150 mM sodium chloride, pH 7.2
- Elution Buffer: 0.1 M melibiose or 0.1 M α -D galactose in phosphate buffered saline
- Regeneration Buffer: 20% (v/v) ethanol in phosphate buffered saline

Immunoglobulin Purification Procedure:

1. Pack 1 ml of immobilized Jacalin / Agarose into a suitable column.
2. Perform all chromatography steps at a flow rate of 0.5-1ml/min, or under gravity flow.
3. Equilibrate the column with 5 ml of Equilibration and Wash Buffer.
4. Dialyze sample against 100 volumes of Equilibration and Wash Buffer.
5. Filter the dialyzed sample using a 0.2 μ m filter.
6. Load the sample onto the column.
7. Wash the column with 20 ml of Equilibration and Wash Buffer.
8. Elute the column with 10 ml of Elution Buffer.
9. Wash the column with 10 ml of Regeneration Buffer and store at 4°C.

Note

The procedure outlined above can be scaled up or down as desired.

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