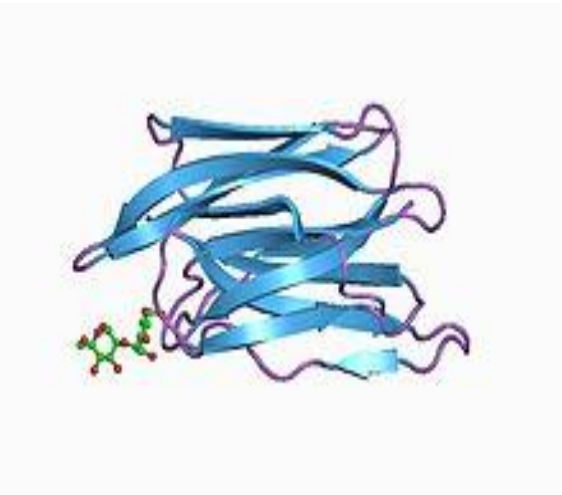
FT-52280A

Jacalin (Galactose biniding Lectin)

Products Description

Protein A, G, L immunoreagent	Jacalin
> Unlabeled Jacalin:	
Unlabeled	52280A, 1mg
> Labeled Jacalin:	
HRP (peroxidase)	Inquire
AP (Alkaline Phosphatase)	FP-MT0480
Biotin (Avidin Binding Protein)	FP-29795A, 1mg
FITC [492/520nm]	FP-MT0310
SR101 [596/620nm]	FP-MT0620
TRITC [550/570nm]	FP-MT0541
R-PE (PhycoErythrin) [488/580nm]	Inquire
APC (AlloPhycoCyanin) [633nm/670nm]	Inquire
> Immobilised Jacalin:	
Agarose	52281B, 5mL



Jacalin Characteristics

Buffer:	0.01M Phosphate -0.15M Nacl, pH 7.2-7.4
Blood Group:	Non-specific after neuraminidase treatment.
Activity:	Less than 0.5µg/ml will agglutinate neuraminidase treated human erythrocytes
Inhibitory carbohydrate:	a-D-Galactose.
MW:	66 kDa.
Gene Bank Accession Number:	Q38720.

Introduction

Jacalin is a of galactose-binding lectin isolated from Jackfruit seeds.

Jacalin is preferably used in applications to isolate IgA from human serum, isolating human plasma glycoproteins and for applications in histochemistry. Jacalin is supplied as a white to light-yellow lyophilized powder without additives. The purity of the lectin is determined by SDS-PAGE, generating two homogeneous bands at 14 kDa and 17 kDa. Gene Bank Accession Number Q38720.

Technical information

Jacalin is one of the two lectins found in jackfruit (Artocarpus integrifolia) seeds. The other lectin is artocarpin.

Our jacalin is hightly purified. The crystal structure of jacalin has been resolved (rcsb). It is a glycoprotein with two non-covalently bound subunits (14.6 and 17.1 kDa), forming a tetrameric two-chain structure with a weight of 66 kDa .

Jacalin belongs to the family of galactose-binding lectins. Nonetheless, the specificity of jacalin is not directed exclusively against the T-antigen disaccharide Galβ1,3GalNAc, lactose and galactose, but also against mannose and oligomannosides. It also capable of binding mannose. Besides mannose, jacalin also interacts readily with glucose, N-acetylneuraminic acid and N-acetylmuramic acid. [Bourne 2002]. A post-translational proteolytic modification of Jacalin gives the lectin a novel carbohydrate-binding site involving the N terminus of the a-chain.

Jacalin has been used to inhibit herpes simplex virus type 2. It has been used to assess the immune status of patients infected with human immunodeficiency virus 1 (HIV1) as it exhibits mitogenic effect on human CD_4^+T lymphocytes. It has been used to analyze *0*-linked glycoproteins due to its high specificity for *O*-glycoside of the disaccharide Thomsen-Friedenreich antigen (Galβ1-3GalNAc).

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Jacalin is used for capturing O-glycoproteins such as mucins and IgA1, for potential applications in human immunology. sed in applications to isolate IgA from human serum, isolating human plasma glycoproteins and for applications in histochemistry. The lectin is blood group non-specific after neuraminidase treatment and agglutinates human erythrocytes at a concentration of ≥ 7,8 µg/ml.

References

Bourne Y. et al (2002) Biochem.J. 364: 173-180
Structural basis for the unusual carbohydrate-binding specificity of jacalin towards galactose and mannose.

References

FluoProbes Lectins[0] .

Other information

Products for R&D use only.

Catalog size quantities and prices may be found at http://www.interchim.com.
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Rev.S1E

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