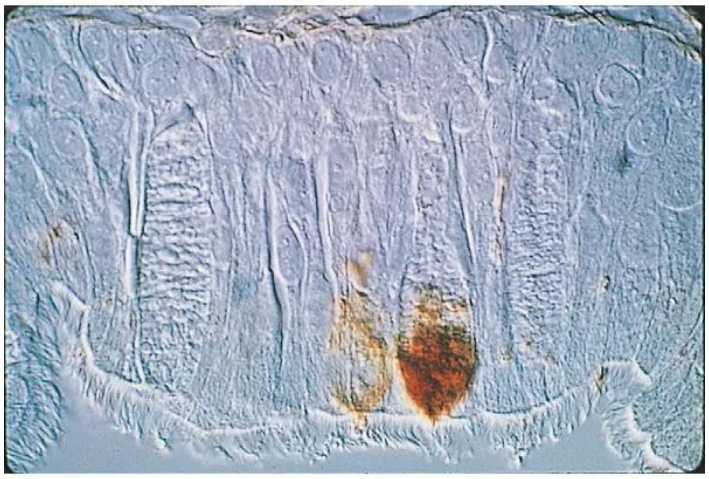
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PEANUT AGGLUTININ (PNA), BIOTINYLATED

SKU: B-1075-5



DESCRIPTION

Peanut agglutinin binds preferentially to the T-antigen, a galactosyl (β-1,3) *N*-acetylgalactosamine structure present in many glycoconjugates such as M and N blood groups, gangliosides, and many other soluble and membrane-associated glycoproteins and glycolipids. With certain exceptions, the receptor sequence for PNA is normally sialylated which prevents the lectin from binding to its receptor oligosaccharide (see Jacalin). Even sialic acid which is not bound directly to the receptor sugars may inhibit binding.

Biotinylated peanut agglutinin has an appropriate number of biotins bound to provide the optimum staining characteristics for this lectin. This conjugate is supplied essentially free of unconjugated biotins and is preserved with sodium azide.

SPECIFICATIONS

Molecular Weight	110

For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

Extinction Coefficient	0.89
Formulation	10 mM HEPES, pH 7.5, 0.15 M NaCl, 0.08% sodium azide, 0.1 mM CaCl2, 0.01 mM MnCl2
Inhibiting or Eluting Sugar	Galactose
Unit Size	5 mg
Storage Instructions	2-8 °C; Store frozen for long term storage
Sugar Specificity	Core 1 and core 2 O-glycans
Usage Summary	DO NOT VORTEX. For most applications we recommend a freshly prepared working solution of 5-20 µg/ml in the below buffer. Use of buffers containing 0.1 mMCaCl2and 0.01 mM MnCl2is recommended. Inhibiting/Eluting Sugar: 200 mM galactose (S-9003).
Applications	Immunohistochemistry / Immunocytochemistry, Immunofluorescence, Blotting Applications, Elispot, ELISAs, Glycobiology
Concentration	5 mg active conjugate/ml
Conjugate	Biotinylated

TECHNICAL INFORMATION

PNA is useful in distinguishing between normal and tumor tissues and in assessing malignancy in transitional mucosa. In addition, PNA binding can be used to measure cellular maturity in lymphoid tissues, to distinguish a variety of lymphocyte subpopulations in man and experimental animals, and to measure the levels of lymphoid cell populations in many diseases. PNA can be employed in the fractionation of stem cells in mice for use in bone marrow transplantation across histocompatibility barriers.

A major cell surface receptor for PNA may be asialo GM_1 ganglioside. Since PNA shares specificity with the antibody to this glycolipid, PNA and the antibody can be used interchangeably in some applications. The presence of calcium ions in diluents can enhance the binding of PNA to receptors, possibly by neutralizing the negative charges on sialic acid residues adjacent to the receptor sequence.

This biotinylated lectin is an ideal intermediate for examining glycoconjugates using the Biotin-Avidin/Streptavidin System. First the biotinylated lectin is added, followed by the VECTASTAIN ABC Reagent, Avidin D conjugate, or streptavidin derivative.

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Inhibiting/Eluting Sugar: 200 mM galactose

CITATIONS

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DOCUMENTS

- Safety Data Sheet
- Lectins in Histochemistry, ELISA, and Western Blot Applications
- Download CoA
- Datasheet

GALLERY IMAGES





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