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PEANUT AGGLUTININ (PNA), UNCONJUGATED

SKU: L-1070



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. 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.

SPECIFICATIONS

Molecular Weight	110
Extinction Coefficient	0.89

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Inhibiting or Eluting Sugar	Galactose
Unit Size	5 mg, 25 mg
Storage Instructions	2-8 °C
Sugar Specificity	Core 1 and core 2 O-glycans
Usage Summary	Although many buffers can be employed for reconstituting and diluting this lectin, 10 mM HEPES buffered saline, pH 8.5, 0.1 mM CaCl2is recommended. For preserving solutions stored at 4 ºC, 0.08% sodium azide can be used.
Applications	Immunohistochemistry, Immunofluorescence
Conjugate	Unconjugated

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.

Inhibiting/Eluting Sugar: 200 mM galactose

CITATIONS

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DOCUMENTS

- Safety Data Sheet

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

GALLERY IMAGES







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