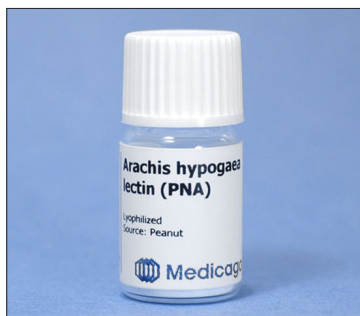




Arachis hypogaea lectin (PNA, Peanut Agglutinin)



Features

- Ultrapure quality
- Strong anti-T activity
- Sugar specificity: β -D-Gal-(1-3)-D-GalNAc
- Agglutinates rabbit erythrocytes at $< 0.1 \mu\text{g/ml}$ after trypsin treatment of the cells
- Lyophilized powder

Product description

Arachis hypogaea lectin or Peanut Agglutinin (PNA) is isolated from peanuts and purified by affinity chromatography. The lectin has a molecular weight of 110 kDa and consists of four identical subunits of approximately 27 kDa each (1).

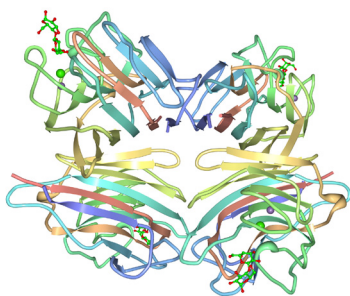


Figure 1: Crystal structure of peanut lectin (2)

PNA is a carbohydrate-free protein that displays specificity towards β -D-Gal(1-3)-D-galNAc (3). It has potent anti-T activity and can be used to distinguish between human lymphocyte subsets. PNA has been used in tumour tissue determination for transitional mucosa malignancies. The lectin agglutinates rabbit erythrocytes at $< 0.1 \mu\text{g/ml}$ after trypsin treatment of cells and its activity is inhibited by lactose and galactose (1).

Medicago's PNA lectin is provided as a white to light-yellow lyophilized powder from 10 mM NH_4HCO_3 . The purity is determined by SDS-PAGE, which generates one major band at 25-27 kDa. The lectin is available in vials containing 50 mg or 10 mg lyophilized powder and the product is to be used for laboratory work only.

Applications

- Probe in histochemistry and immuno-histochemistry
- Human erythrocyte/lymphocyte subset studies

Specifications

Appearance	White to light-yellow lyophilized powder
Source	Peanuts
Molecular weight	110 kDa
Activity	Agglutinates rabbit erythrocytes at $< 0.1 \mu\text{g/ml}$. Agglutination fully inhibited by 10 mM D-galactose
Microorganisms	$< 100 \text{ CFU/g}$
Protein content	$> 85\%$
Identity	SDS-PAGE, one major band at 25-27 kDa
Shelf life	$> \text{Three years}$ when stored at -20°C

Directions for use

The lectin may be reconstituted with 2 ml of sterile PBS buffer, pH 7.4 before use, spin the vial gently until full dissolution.

Shipping and storage

The product is shipped at -20°C however for over-the-day transport it may be shipped at ambient temperature. The lyophilized powder is stable for more than three years from production date when stored below -20°C . After reconstitution with PBS buffer, the solution may be stored frozen in working aliquots for up to 12 months.

Tips and hints

Avoid repeated freezing and thawing.