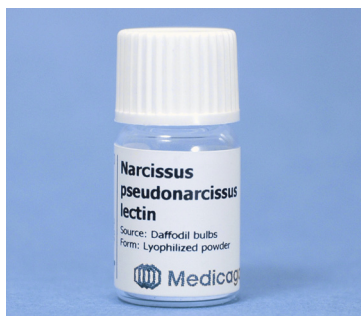




Narcissus pseudonarcissus lectin (NPA/NPL)



Features

- Ultrapure quality
- Sugar specificity: D-GalNAc
- Mitogenic activity
- Non-reactive with human erythrocytes
- Lyophilized powder

Product description

Narcissus pseudonarcissus lectin (NPL) is isolated from daffodils. It exists as a dimeric protein with the molecular weight of 26 kDa composed by two subunits of 13 kDa each. The lectin has specificity toward alpha linked mannose. NPL is used in characterisation of early stages of apoptosis and is mitogenic for human lymphocytes (1). The lectin agglutinates rabbit erythrocytes but is non-reactive with human erythrocytes (2).

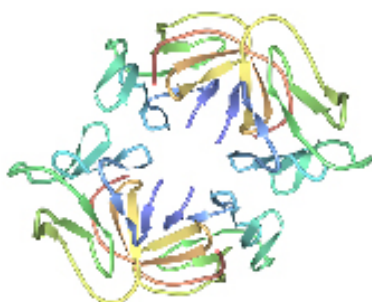


Figure 1: Structure of *Narcissus pseudonarcissus* lectin complex with Mannobiose (3)

Medicago's NPL lectin is supplied as a white lyophilized powder from 10 mM CH₃COONH₄. The purity is determined by SDS-PAGE, which generates one band at 13 kDa, corresponding to the two isomers (the lectin dissociates below pH 5.0 and above pH 9.0). 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

- Mitogenic studies of human lymphocytes
- Agglutination studies

Specifications

Appearance	White lyophilized powder
Source	Daffodils
Molecular weight	26 kDa
Sugar specificity	D-GalNAc
Activity	Agglutinates rabbit erythrocytes at <0.1 µg/ml, inhibited by 10 mM D-galactose. NPL agglutinates both normal and trypsin treated rabbit erythrocytes.
Microorganisms	< 100 CFU/g
Protein content	> 90%
Identity	SDS-PAGE, one band at 13 kDa
Shelf life	> Five years when stored at -20°C

Directions for use

The lectin may be reconstituted with 2 ml of deionized water before use, spin the vial gently until full dissolution. The solution may be reconstituted in this buffer to desired working concentration. Aggregation is thought to occur in the presence of high concentrations of 2-mercaptoethanol.

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 five years from production date when stored below -20°C. After reconstitution with deionized water, the solution may be stored frozen in working aliquots for up to 12 months.



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Tips and hints

Avoid repeated freezing and thawing.

Certifications

Medicago's laboratories and manufacturing site in Uppsala are ISO 9001:2008 and ISO 13485:2003 certified. Each stage of the manufacturing process is controlled and monitored by stringent quality control procedures to guarantee the highest possible quality and lot-to-lot reproducibility.



Ordering information

Article no.	Product name	Pack size
05-0119-50	<i>Narcissus Pseudonarcissus</i> lectin	50 mg
05-0119-10	<i>Narcissus Pseudonarcissus</i> lectin	10 mg

References

- (1) Summers C., Forrest J., Norval M., Sharp J. M. (2002) The potentially insecticidal *Narcissus pseudonarcissus* lectin demonstrates age-related mitogenicity. *FEMS immunology and medical microbiology* vol 33 Issue 1, 47–9.
- (2) Van Damme J. M., Allen A. K., Peumans W. J. (2007). Related mannose-specific lectins from different species of the family Amaryllidaceae. *Physiologia Plantarum* Vol 53, Issue 1, 52–7.
- (3) Structure of *Narcissus pseudonarcissus* lectin complex with Mannobiose at 1.7 Å resolution, form II Rizkallah, P.J., Ozbey, S., Sauerborn, M.K. To be Published. Where did we get the picture?