

ABSOLUTE LECTINS

05-0119 *Narcissus pseudonarcissus* lectin (NPA/NPL)



Benefits

- Sugar specificity: α -D-mannose
- Mitogenic activity (1)
- Non-reactive with human erythrocytes (2)

Product description

Narcissus pseudonarcissus lectin (NPL) is isolated from daffodils. It exists as a dimeric protein (molecular weight 26 kDa) composed of two subunits of 13 kDa each. NPL dissociates into its monomers below pH 5.0 and above pH 9.0.

NPL is mitogenic for human lymphocytes (1). Specificity for blood group: non-reactive with human erythrocytes (2).

Narcissus pseudonarcissus lectin is supplied as a white lyophilized powder in 10 mM $\text{CH}_3\text{COONH}_4$.

For laboratory use only.

Applications

- Mitogenic studies of human lymphocytes

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.

Tips and hints

Avoid repeated freezing and thawing.

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.

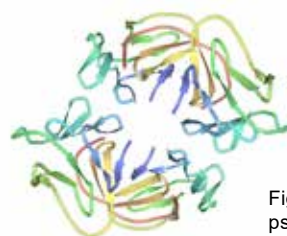


Figure 1: Structure of *Narcissus pseudonarcissus* lectin complex with Mannobiose (3)

Specifications	<i>Narcissus pseudonarcissus</i> lectin (NPA/NPL) (05-0119)
Appearance	White lyophilized powder
Source	Daffodils
Molecular weight	26 kDa
Sugar specificity	α -D-mannose
Activity	Agglutinates rabbit erythrocytes at $<0.1 \mu\text{g/ml}$, inhibited by 10 mM D-galactose. NPL agglutinates both normal and trypsin treated rabbit erythrocytes.
Microorganisms	$\leq 100 \text{ CFU/g}$
Shelf life	\geq Five years when stored at -20°C

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Certifications

Medicago's laboratories and manufacturing site in Uppsala are ISO 9001:2015 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
05-0119-10mg	<i>Narcissus pseudonarcissus</i> lectin	10 mg
05-0119-50mg	<i>Narcissus pseudonarcissus</i> lectin	50 mg
05-0119-1g	<i>Narcissus pseudonarcissus</i> lectin	1 g

References

- (1) Summers C., Forrest J., Norval M., Sharp J. M. (2002) The potentially insecticidal *Narcissus pseudonarcissus* lectin demonstrates age-related mitogenecity. FEMS immunology and medical microbiology vol 33 Issue 1, 47–9.
- (2) Van Damme J. M., Allen A. K., Peumans W. J. (2007). Related mannosespecific 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.