

## Phaseolus vulgaris lectin P (PHA-P)



### Features

- Ultrapure quality
- Agglutinates leucocytes and erythrocytes
- Mixture of L and E subunits
- Sugar specificity: complex oligosaccharides
- Lyophilized powder

### Product description

*Phaseolus vulgaris* lectin P or Phytohemagglutinin (PHA-P) is isolated from red kidney beans and purified by affinity chromatography. The lectin consists of the two subunits lectins PHA-E (erythroagglutinin) and PHA-L (leucoagglutinin) (1) in compositions L<sub>1</sub>E<sub>3</sub>, L<sub>2</sub>E<sub>2</sub>, L<sub>3</sub>E<sub>1</sub>, E<sub>4</sub>.

Thus PHA-P is the form of PHA before separation of erythroagglutinin and leucoagglutinin. PHA-P has a molecular weight of 115 kDa and specificity for complex oligosaccharides (1). PHA-P is not blood group specific.

Medicago's PHA-P lectin is supplied as a white to light-pink lyophilized powder from 50 mM NH<sub>4</sub>HCO<sub>3</sub>. The purity of the lectin is determined by SDS-PAGE generating one single band. PHA-P is available in vials containing 10 mg or 5 mg lyophilized powder and the product is to be used for laboratory work only.

### Applications

- Lateral flow erythrocyte separation

### 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 three 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.

### Specifications

Appearance	White to light-pink lyophilized powder or flocculate
Source	Red kidney beans
Molecular weight	115 kDa
Sugar specificity	Complex oligosaccharides
Activity	Agglutinates human erythrocytes
Microorganisms	< 100 CFU/g
Protein content	> 75 %
Identity & Purity	SDS-PAGE, one band

### 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.





# ABSOLUTE LECTINS

## Ordering information

Article no.	Product name	Pack size
A05-0115-10	<i>Phaseolus Vulgaris</i> P lectin	10 mg
A05-0115-5	<i>Phaseolus Vulgaris</i> P lectin	5 mg

## 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 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 got the picture?

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