



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. PHA-P is a mixture of isolectins containing L (leucoagglutinin) and E (erythroagglutinin) subunits (1) in compositions L_1E_3 , L_2E_2 , L_3E_1 , E_4 .

Thus PHA-P is the form of PHA before separation of erythroagglutinin and leucoagglutinin. PHA-P has a molecular weight of 128 kDa and specificity for complex oligosaccharides (1). PHA-P is not blood group specific (2) and agglutinates human erythrocytes blood group 0 with a lectin concentration of $\leq 4 \mu\text{g/ml}$.

Medicago's PHA-P lectin is supplied as a white to light-pink essentially salt-free lyophilized powder from 50 mM NH_4HCO_3 , which evaporates during the lyophilization procedure. The purity of the lectin is determined by SDS-PAGE generating one single band. PHA-P is available in vials or plastic bottles containing 1 g, 10 mg or 5 mg of lyophilized powder and the product is to be used for laboratory work only.

Applications

- Lateral flow erythrocyte separation.

Directions for use

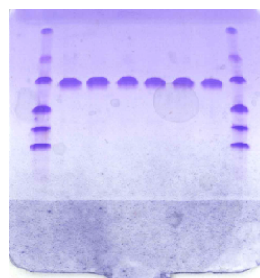
The lectin may be reconstituted with a concentration of 5 mg/ml in PBS, pH 7.4, (Medicago art. no. 09-8912) before use. Rotate the vial gently until full dissolution. If a clear solution is still not obtained, filtration may be conducted. The solution may be reconstituted in this buffer to desired working concentration.

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 PBS, pH 7.4, 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	128 kDa
Sugar specificity	Complex oligosaccharides
Activity	Agglutinates human erythrocytes and leukocytes (lectin concentration $\leq 4 \mu\text{g/ml}$)
Microorganisms	$< 100 \text{ CFU/g}$
Purity	$\geq 95\%$ by SDS-PAGE
Shelf life	$>$ Five years when stored at -20°C



Results from an SDS-PAGE showing one band.

Lanes 1, 8: GE 1mw calibration kit for SDS electrophoresis
 Lanes 3, 5, 7: PHA-P sample lot 144513
 Lanes 2, 4, 6: PHA-P reference lot 133101

Tips and hints

Avoid repeated freezing and thawing.

Certifications

Medicago's laboratories and manufacturing site in Uppsala are ISO 9001:2008 and ISO 13485:2012 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
05-0115-1000	<i>Phaseolus vulgaris</i> lectin P	1 g
05-0115-10	<i>Phaseolus vulgaris</i> lectin P	10 mg
05-0115-5	<i>Phaseolus vulgaris</i> lectin P	5 mg

References

- (1) Rigas, D.A. and Osgood, E.E. J. Biol. Chem. 212, 607, (1955)
- (2) Kornfeld, R. and Kornfeld, S. J. Biol. Chem. 245, 2536, (1970)