

ABSOLUTE LECTINS

05-0115 Phaseolus vulgaris lectin P (PHA-P), E-subunit enhanced



Benefits

- Ultrapure quality
- Agglutinates leucocytes and erythrocytes
- Mixture of L and E subunits (1)
- Sugar specificity: complex oligosaccharides (1)
- 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 L1E3, L2E2, L3E1, E4.

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 ≤ 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

Typical subunit composition

Total L subunit composition: 35-40%

Total E subunit composition: 60-65%

L4 0-10%

L3E1 10-20%

L2E2 15-25%

L1E3 35-50%

E4 10-20%

Directions for use

The lectin may be reconstituted in a suitable buffer for your application.

Tips and hints

Avoid repeated freezing and thawing.

Specifications

Phaseolus vulgaris lectin P (05-0038)

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 ≤ 4 $\mu\text{g/ml}$)
Microorganisms	≤ 100 CFU/g
Shelf life	\geq Five years when stored at -20°C

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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.

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
05-0115-5mg	<i>Phaseolus vulgaris lectin P</i>	5 mg
05-0115-10mg	<i>Phaseolus vulgaris lectin P</i>	10 mg
05-0115-1g	<i>Phaseolus vulgaris lectin P</i>	1 g
05-0115-10g	<i>Phaseolus vulgaris lectin P</i>	10 g
05-0115-100g	<i>Phaseolus vulgaris lectin P</i>	100 g

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)