

ABSOLUTE LECTINS

05-0038 Phaseolus vulgaris lectin P (PHA-P), native isomer composition



Benefits

- 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 ≤ 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: 60-65%

Total E subunit composition: 35-40%

L4	25-35%
L3E1	20-30%
L2E2	10-20%
L1E3	17-27%
E4	1-11%

Directions for use

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

Tips and hints

Avoid repeated freezing and thawing.

Specifications

Appearance
Source
Molecular weight
Sugar specificity
Activity

Microorganisms
Shelf life

Phaseolus vulgaris lectin P (PHA-P) (05-0038)

White to light-pink lyophilized powder or flocculate
Red kidney beans
128 kDa
Complex oligosaccharides
Agglutinates human erythrocytes and leukocytes (lectin concentration ≤ 4 $\mu\text{g/ml}$)
 ≤ 100 CFU/g
 \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 9001:2008 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
05-0038-5mg	PHA-P, native isomer composition	5 mg
05-0038-10mg	PHA-P, native isomer composition	10 mg
05-0038-1g	PHA-P, native isomer composition	1 g
05-0038-10g	PHA-P, native isomer composition	10 g
05-0038-100g	PHA-P, native isomer composition	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)