

# 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  $\leq 4 \mu\text{g/ml}$ .

Medicago's PHA-P lectin is supplied as a white to light-pink essentially salt-free lyophilized powder from 50 mM  $\text{NH}_4\text{HCO}_3$ , 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 $\leq 4 \mu\text{g/ml}$ )
Microorganisms	$\leq 100 \text{ CFU/g}$
Shelf life	$\geq$ Five years when stored at $-20^\circ\text{C}$

# ABSOLUTE LECTINS

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

### 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)