



Product name:	<b>Phaseolus Vulgaris lectin L (PHA-L) Phytohemagglutinin</b>
Production date:	2023-06
Date of release:	2023-08-31
Stability:	2026-06
Source:	<i>Phaseolus Vulgaris</i> (Red kidney beans)
Form:	Lyophilized
Storage:	-20°C

Analysis	Specification	Result
Appearance	White powder or flocculate	Fulfills requirement
Assay (%)	≥ 85 % ( $A_{280}$ absorbance coefficient $A_{1\text{mg/ml}} = 1.14$ ) in PBS solution	Fulfills requirement
Electrophoresis	One major band at 31 kDa (SDS-PAGE)	Fulfills requirement, see appendix 1.
Bacterial burden	< 100 CFU/g	Fulfills requirement
Haemagglutination	Does not agglutinate human blood group 0 erythrocytes at ≤ 250 µg/ml in 0.9 % NaCl after 2 h at 25°C	Fulfills requirement

Appendixes: 1. SDS-PAGE
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The above material has met all quality specifications and has been reviewed by a quality representative.

*Sebastian Määttä*

2023-08-31

Quality Assurance, Sebastian Määttä

Date

**Bilaga 1****SDS PAGE, analysis of PHA-L lot 292218**

Electrophoresis with Pharmacia Phastsystem (Amersham Biosciencis).

**Material**

Phast gel gradient 8 – 25

Phast gel SDS buffer strips

**Method**

Loading buffer (10 mM TRIS/HCL, 1 mM EDTA, 2.5 % SDS, 1 % DTT) was added to the protein solution (2.8 mg/ml), dilution factor 2:5.

LMW marker was from, LMW SDS calibration kit for SDS electrophoresis (GE Healthcare).

MW of proteins included in LMW (14 000 Da - 97 000 Da) marker:

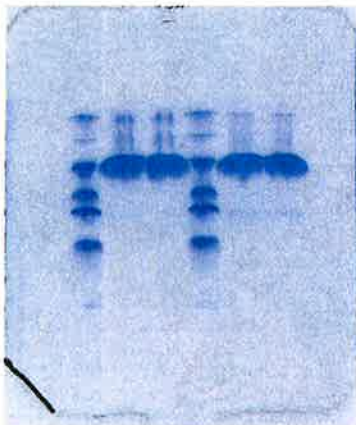
Phosphorylase b	97 000
Albumin	66 000
Ovalbumin	45 000
Carbonic anhydrase	30 000
Trypsin inhibitor	20 100
$\alpha$ -Lactalbumin	14 400

The samples were boiled for 5 min. and approx. 1  $\mu$ l was applied on Phast gel (gradient 8 – 25). Program; 300v, 7.5 mA, 2.0 W, 80 Vh.

The gels were stained with Coomassie blue for 30 min and then destained.

**Result**

1 2 3 4 5 6 7 8



<b>Lane 1,8</b>	<b>Tom</b>		
<b>Lane 2, 5</b>	LMW mol marker	lot:290717	
<b>Lane 3, 4</b>	PHA-L lot 292218	1.0 mg/ml	(Prov)
<b>Lane 6, 7</b>	PHA-L lot 150205	1.0 mg/ml	(Refrence)

Analysis performed by

  
Salah Ahmed / 2023-06-27