

Art no: 05-0115

## CERTIFICATE OF ANALYSIS

Lot no: 251216



Product name:	<b>PHA-P Lectin</b>
Production date:	2019-04
Date of release:	2019-04-26
Stability:	2024-04
Source:	<i>Phaseolus Vulgaris</i> beans (Red Kidney Beans)
Form:	Lyophilized
Storage:	-18 °C (may be shipped at ambient temp)

Analysis	Specification	Result
Appearance	White powder or flocculate by visual inspection resulting in a clear solution.	Fulfills requirement
Solubility	Dissolves in PBS buffer pH 7.4 within 5 minutes.	Fulfills requirement
Assay (%)	> 75 % by OD <sub>280nm</sub> ( $\epsilon$ 1mg/ml = 0,96) in PBS pH 7.4 after filtration through 0.2 $\mu$ m acetate membrane.	93,14 %, fulfills requirement
Electrophoresis	One major band in SDS-electrophoresis, comparable to reference sample.	Fulfills requirement, see appendix 1.
Bacterial burden	Less than 10 <sup>2</sup> CFU per 1 g of solid substance.	Fulfills requirement
Haemagglutination	Agglutinates human blood group 0 at a concentration $\leq$ 4 $\mu$ g/mL	1.0 $\mu$ g/mL, fulfills requirement, see appendix 2.

Appendixes: 1. SDS-PAGE 2. Haemagglutination
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The above material has met all quality specifications and has been reviewed by a quality representative.

  
Quality Assurance, Camilla Krig

2019-04-26  
Date

**Bilaga 1, tillhör M-00230****SDS PAGE, analysis of PHA-P lot 251216**

Electrophoresis with Pharmacia Phastsystem (Amersham Biosciences)

**Material**Phast gel gradient 8 – 25  
Phast gel SDS buffer strips**Method**

The proteins were dissolved to 2 mg/ml 1:1 in PBS and loading buffer (10.9 mM TRIS/HCL, 1.1 mM EDTA, 2.7 % SDS, 50 mM DTT).

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****Lane 1, 6, 7, 8** Empty**Lane 2** LMW**Lane 3, 4** PHA-P lot 251216**Lane 5** PHA-P lot 233307 (reference)

Analysis performed by

  
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Tyra Hultgren, 2019-04-09

2019-04-26

CU

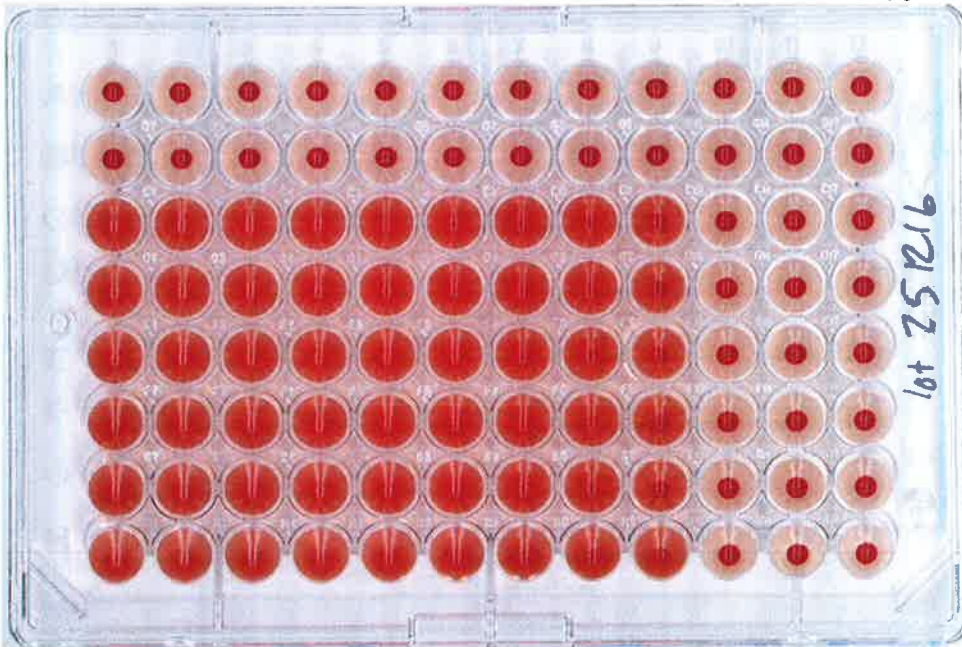
Bilaga 2, tillhör M-00030

**Haemagglutination (human blood group 0)**

**Lectin from Phaseolus vulgaris (red kidney bean),**

**Phytohemagglutinin (PHA)-P lot 251216**

Column	1	2	3	4	5	6	7	8	9	10	11	12
Conc	500	250	125	63	31	16	7.8	3.9	2.0	1.0	0.5	0.2 µg/ml



Row A,B      Blank  
Row C-H      PHA-P lot 251216

Date: 2019-04-11

Signature: TH