




Product name:	PHA-P Lectin
Production date:	2010-05
Date of release:	2016-05-04 (retested)
Stability:	2018-10
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 _{280nm} (ϵ 1mg/ml = 0,96) in PBS pH 7.4 after filtration through 0.2 μ m acetate membrane.	91.5 %, fulfills requirement
Electrophoresis	One major band in SDS-electrophoresis, comparable to reference sample.	Fulfills requirement, see appendix 1.
Bacterial burden	Less than 10 ² CFU per 1 g of solid substance.	Fulfills requirement
Haemagglutination	Agglutinates human blood group 0 at a concentration \leq 4 μ g/ml	0.9 μ g/ml, fulfills requirement. See appendix 2.

Appendixes:
 1. SDS-PAGE
 2. Haemagglutination

The above material has met all quality specifications and has been reviewed by a quality representative.



 Quality Assurance, Erik Silfverplatz

2016-05-04

 Date

SDS PAGE, analysis of PHA-P, lot 152707-221405 (omanalysis)

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 in loading buffer (10 mM TRIS/HCL, 1 mM EDTA, 2.5 % SDS, 50mM 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
α -Lactalbumin	14 400

The samples were boiled for 5 min. and approx. 1.0 μ 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



Lane 2. LMW mol marker
Lane 3 - 4. PHA-P lot 212004 (reference)
Lane 5 - 6. PHA-P lot 152707
Lane 7 LMW mol marker

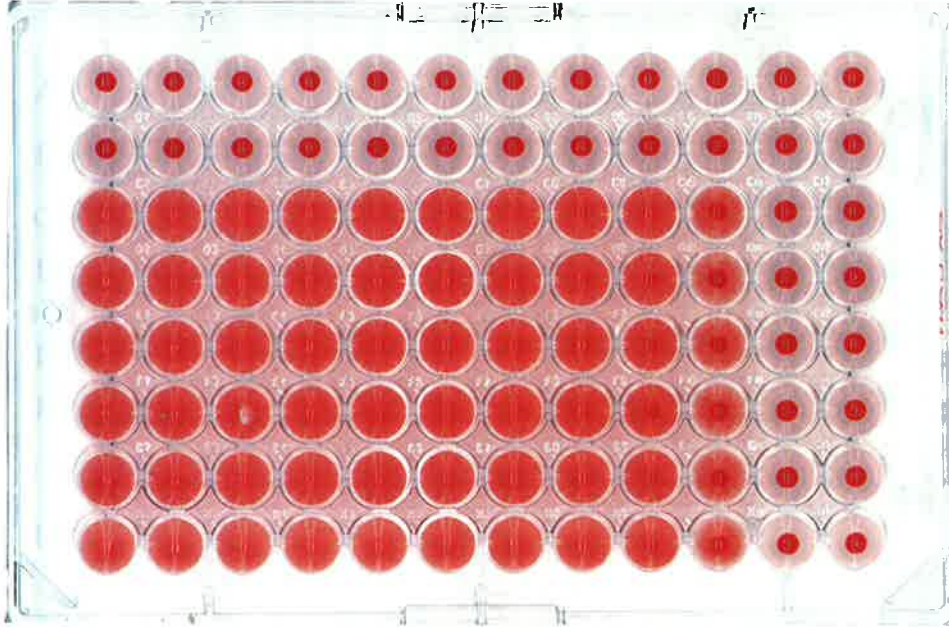
Analysis performed by


Kristina Domeika 2016-04-05

Haemagglutination (human blood, group 0), Lot 152707-221405 (omanalysis)

Lectin from *Phaseolus vulgaris* (red kidney bean), Phytohemagglutinin (PHA)-P

Column	1	2	3	4	5	6	7	8	9	10	11	12
Conc	500	250	125	62	31	16	7.8	3.9	1.9	0.9	0.5	0.2 µg/ml



Row A,B Blank
Row C-H Lot 152707-221405

Date: 2016-04-05

Signature: Kishina Jarek