CERTIFICATE OF ANALYSIS



Product name:

PHA-P Lectin

Production date:

2019-12

Date of release:

2020-01-31

Stability:

2024-12

Source:

Phaseolus Vulgaris 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 at 1 mg/ml within 5 minutes.	Fulfills requirement	
Assay (%)	> 75 % by OD280nm (ε 1mg/ml = 1, 14) in PBS pH 7.4 after filtration through 0.2 μm acetate membrane.	95,2 %, Fulfills requirement	
Electrophoresis	One major band in SDS-electrophoresis, comparable to reference sample.	Fulfills requirement, see appendix 1.	
Bacterial burden	Less than 100 CFU per 1 g of solid substance.	Fulfills requirement	
Haemagglutination	Agglutinates human blood group 0 at a concentration ≤ 8 μg/ml	7,8 μg/ml, Fulfills requirement, see appendix 2.	

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- 1. SDS-PAGE
- 2. Haemagglutination

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

Malen Malthon

2020-01-31

Quality Assurance, Malin Mattson

Date



Appendix 1 to COA of lot 254819 2020-01-31 1mm



Bilaga 1, tillhör M-00230 SDS PAGE, analysis of PHA-P lot 254819

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 mM TRIS/HCL, 1 mM EDTA, 2.5 % SDS, 50 mM DTT).

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

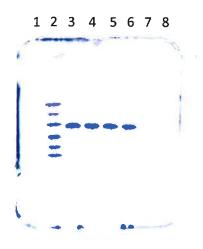
MW of proteins included in LMW (14 000 Da - 97 000 Da) marker:

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

The samples were heated for 5 min. and approx. 1 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



Lane 1 empty Lane 2 LMW

Lane 3, 4 PHA-P lot 254819

Lane 5, 6 PHA-P lot 231107 (reference)

Lane 7, 8 empty

Analysis performed by

2020 - 0\-20 / M€ Maja Ericsson, 2020-01-20



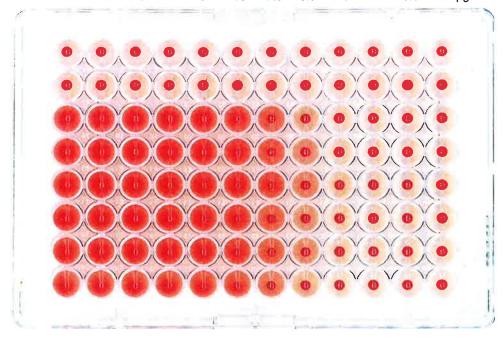
Bilaga 2, tillhör M-00030

Haemagglutination (human blood group 0)

Lectin from Phaseolus vulgaris (red kidney bean),

Phytohemagglutinin (PHA)-P lot 254819, omprov

Column 1 5 10 8 9 11 12 Titer 256 512 1024 2048 2 4 8 16 32 64 128 Conc 500 250 125 31 16 0.2 µg/ml 3.9 2.0 1.0 0.5



Row A,B Row C-H Blank

H PHA-P lot 254819

Date/Sign:

2020-01-28/ME

2020-01-28/ME