

Art no: 05-0104

CERTIFICATE OF ANALYSIS

Lot no: 264422



Intertek

Product name:	<i>Lens culinaris</i> lectin, <i>Lens culinaris</i> agglutinin
Production date:	2021-02
Date of release:	2021-03-03
Stability:	2026-02
Form:	Lyophilized

Analysis	Specification	Result
Appearance	White powder or flocculate by visual inspection resulting in a clear solution.	Fulfills requirement
Solubility	Dissolves in distilled water and 0.9% NaCl within 5 minutes.	Fulfills requirement
Assay (%)	≥ 85 % protein by OD ₂₈₀ nm (ε 1mg/ml = 1,34), essentially salt free.	94,9 %, fulfills requirement
Electrophoresis	Gives two major bands in isoelectroforesis corresponding to the two isomers LCA-A and LCA-B.	Fulfills requirement, see attachment 3.
Activity Haemagglutination/inhibition	Agglutinates human erythrocytes (2% blood solution) when lectin concentration is ≤ 10 µg/ml in 0.9 % NaCl after 1 hour at 25 °C. Total inhibition appears with 60 mM Methyl mannoside (end conc. 20 mM) at a titer minimum 4 steps lower than titer of control. Control must have a titer of minimum 32.	Titer inhibition with 20 mM Methyl mannoside = 1; Agglutination at 10 µg/ml. Fulfills requirement, see attachment 2.
UV scan	Typical appearance of <i>Lens culinaris</i> lectin at 700-230 nm.	Fulfills requirement, see attachment 1.
Bacterial burden	Less than 10 ² CFU per 1 g of solid substance.	< 100 CFU/g, fulfills requirement

Appendixes:

1. UV Scan 700-230nm.
2. Activity, Haemagglutination control.
3. IEF electrophoresis.

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


Quality Assurance, Camilla Krig

2021-03-03

Date

Bilaga 1

Tillhör M-00019

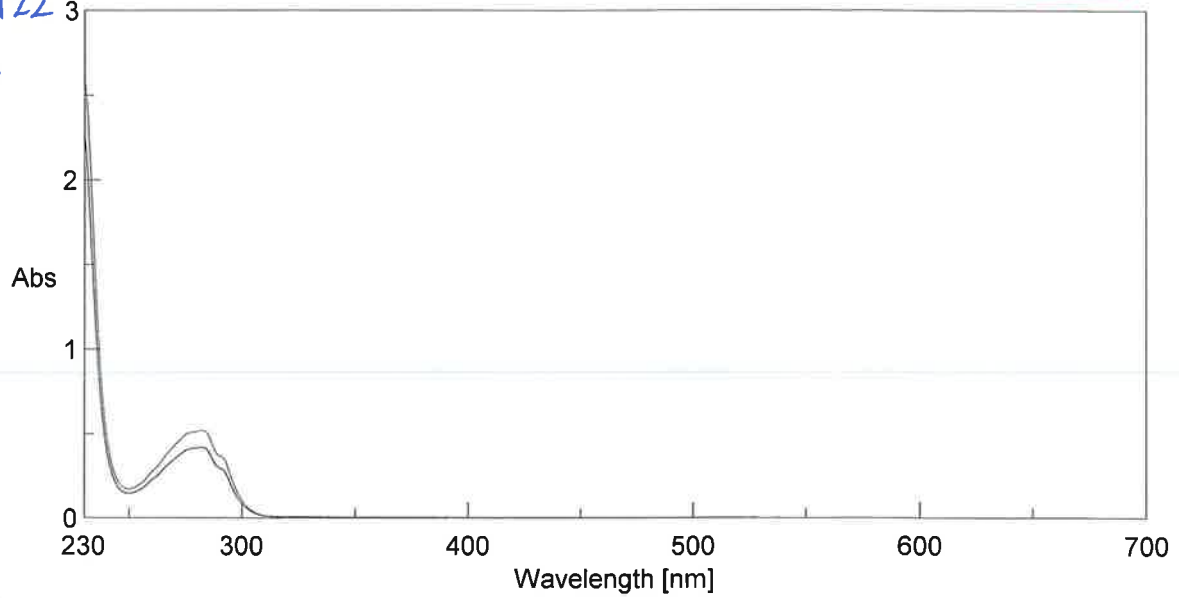
Lotnr: 264422

2021-02-23

MAB

Memory-2

Appendix 1



[Comments]

Sample name LCA 264422
Comment
User
Division
Company Medicago

Memory-2
Memory-4

[Detailed Information]

Creation date 2021-02-23 11:49
Date modified 2021-02-23 11:49
Data array type Linear data array
Horizontal axis Wavelength [nm]
Vertical axis Abs
Start 700 nm
End 230 nm
Data interval 0.5 nm
Data points 941

[Measurement Information]

Instrument name Jasco UV Vis
Model name V-760
Serial No. A011061800

Accessory USE-753
Accessory S/N A011061800
Cell
Ref. beam

Measurement date 2021-02-23 11:49

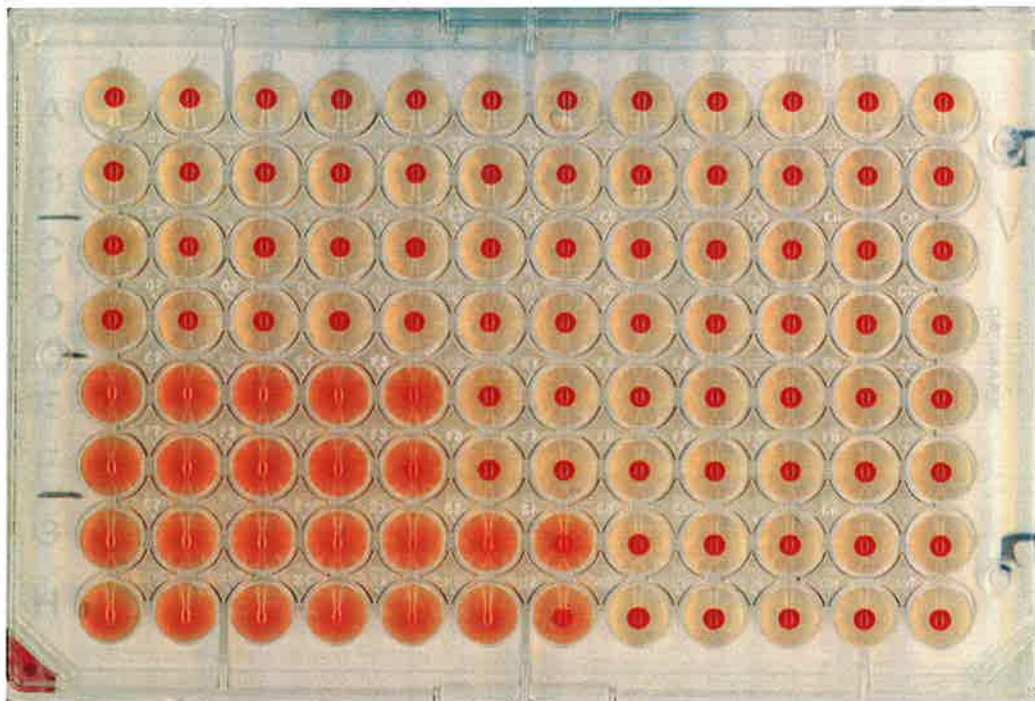
Parameter file C:\Program Files (x86)\JASCO\SpectraManager\samples\230-700.uvsp
Photometric mode Abs
Measurement range 700 - 230 nm
Data interval 0.5 nm
Bandwidth 2.0 nm
Response 0.06 sec
Scan speed 1000 nm/min
Change source at 340 nm
Light source D2/WI

Bilaga 1, tillhör M-00020

Haemagglutination (human blood, group 0), Lot 264422

***Lens culinaris* agglutinin (LCA)**

Column	1	2	3	4	5	6	7	8	9	10	11	12	
Conc	333	167	83	42	21	10	5.2	2.6	1.3	0.6	0.3	0.16	µg/mL
Titer	0	2	4	8	16	32	64	128	256	512	1024	2048	



Row A,B Blank
 Row C,D With 20 mM α -metyl-D-mannosid
 Row E,F With 2 mM α -metyl-D-mannosid
 Row G,H Only lectin without α -metyl-D-mannosid (agglutination control)

Plate scanned:

Date: 2021-02-25

Signature: M.B.
 Martina Brolin

Bilaga 1
 Tillhör M-00018
 lot.nr: 264422
 2021-03-01/SA

Bilaga 1, tillhör M-00018

IEF analysis *Lens culinaris* lectin, Lot 264422

Isoelectric focusing using Pharmacia Phastsystem (Amersham Biosciences).

Materials

Phastgel IEF 3-9

Reference proteins pH 3.5 – 9.3 (IEF Stdrd)

Amylglucosidase -	3.50 pl
Methyl red (dye) -	3.75 pl
Trypsin inhibitor -	4.55 pl
b-Lactoglobulin A -	5.20 pl
Carbonic anhydrase B (bovine) -	5.85 pl
Carbonic anhydrase B (human) -	6.55 pl
Myoglobin, acidic band -	6.85 pl
Myoglobin, basic band -	7.35 pl
Lentil lectin, acidic -	8.15 pl
Lentil lectin, middle -	8.45 pl
Lentil lectin, basic -	8.65 pl
Trypsinogen -	9.30 pl

Method

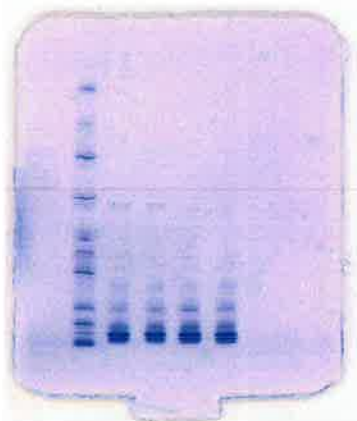
The proteins were diluted to 4 mg/ml in milliQ water supplemented with 30 % saccharose. The gels were fixed for 3 min, washed and stained with IEF staining sol. for 10 min at 50°C and then destained.

Program

Sample applicator down at	2.2	0Vh				
Sample applicator up at	2.3	0Vh				
SEP 2.1	2000V	2.5mA	3.5W	15°C	75Vh	
SEP 2.2	200V	2.5mA	3.5W	15°C	15Vh	
SEP 2.3	2000V	2.5mA	3.5W	15°C	410Vh	

Result

1 2 3 4 5 6 7 8



- Lane 1 Empty
- Lane 2 IEF standard pH 3.5 – 9.3
- Lane 3-4 Ref lot 203915
- Lane 5-6 LCA 264422
- Lane 7-8 Empty

Analysis performed by

MABr
 Martina Brolin, 2021-02-24