



LIFTMODE
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CERTIFICATE OF ANALYSIS

Berberine Hcl

(5,6-Dihydro-9,10-dimethoxy-benzo[g]-1,3-benzodioxolo[5,6-a]quinolinizinium hydrochloride)

Material Lot #: 180510 Manufacture Date: 05/10/2018
Country of Origin: China Retesting Date: 09/19/2021
Botanical Source: *Phellodendron amurense*

Analysis	Claim	Result
Berberine Hcl	≥98.0%	98.02%

Test	Specification	Result
Appearance	Yellow-Orange Fine Powder	Complies
Loss on Drying	<12.0%	9.6%
Residue on Ignition	≤0.06%	0.06%
Heavy Metals	≤10 ppm	Complies
Solvent Residue	≤ 5000 ppm	Complies
Total Plate Count	≤1000 CFU/g	Complies
Yeast & Mold	≤100 CFU/g	Complies
E.Coli	Negative	Complies
Pseudomonas aeruginosa	Negative	Complies

Berberine Hcl should be stored at or below room temperature in a tightly sealed durable container.
Berberine Hcl should be protected from excess heat, direct sunlight, excess humidity and moisture.
Berberine Hcl has a stable shelf life of 3 years from the date of testing when properly stored.




812 Meadowlark Lane, Goodlettsville, TN 37072
Telephone: 615-239-8604

Certificate of Analysis

Synaptent LLC
47 W Polk Street, 100-241
Chicago, IL 60654

Product Name	Berberine HCL	Product Lot Number	180510
Report Date	09/20/2018	Laboratory Number	10854

Description	Method	Result
Identification	¹ H NMR	Conform
Assay	HPLC	99.6 %
Lead	ICP-MS	0.071 ppm
Arsenic	ICP-MS	<0.001 ppm
Cadmium	ICP-MS	0.384 ppm
Mercury	ICP-MS	0.130 ppm
Total Aerobic Count	Biolumix	<10 CFU/g
Yeast and Mold	Biolumix	<10 CFU/g
E. Coli	Biolumix	Absent
Coliform	Biolumix	<10 CFU/g
Salmonella	Biolumix	Absent


Michael Robil
QA Auditor

09/20/18
09/20/2018
Date

The result(s) stated in this report is only for the sample submitted. This report may not be reproduced in whole or in part, nor may any reference be made to the work, the result, or the company in any news release, public announcements or advertising without our prior written consent.

1H NMR of Berberine HCl
in DMSO
Lot #10854
Colmaric Analytical
400 MHz
09-18-18

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Current Data Parameters
NAME      Sep18-2018-colmaric
EXPNO    1
PROCNO   1

F2 - Acquisition Parameters
Date_    20180918
Time     12.42
INSTRUM  spect
PROBHD   5 mm PABBO BB-
PULPROG  zg30
TD        32768
SOLVENT  DMSO
NS        32
DS        0
SFO1     500.131111 Hz
FIDRES   0.158946 Hz
AQ        3.1457281 sec
RG        71.8
SWH       96.000 usec
DE        25.41 usec
TE        298.0 K
D1        1.50000000 sec
TD0

----- CHANNEL F1 -----
NUC1      1H
P1        11.20 usec
PL1       -2.50 dB
PL12      18.35869598 W
SFO1      400.1300071 MHz

F2 - Processing parameters
SI        32768
SF        400.1300071 MHz
WDW       EM
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