



LIFTMODE
47 W. Polk St. STE 100-241
Chicago, IL 60605

liftmode@liftmode.com
www.liftmode.com

CERTIFICATE OF ANALYSIS

DL-Phenylalanine (2-amino-3-phenylpropanoic acid)

Material Lot #: 20161006 Manufacture Date: 10/07/2016
Country of Origin: China Retesting Date: 10/06/2018

Analysis	Claim	Result
DL-Phenylalanine	≥99.0%	99.1%

Test	Specification	Result
Appearance	White crystals or crystalline powder	Complies
Loss on drying	≤0.20%	0.1%
Residue on ignition	≤0.30%	0.15%
Heavy Metals	≤10 ppm	Complies
Arsenic (As2O3)	≤1 ppm	Complies
Cadmium (Cd)	≤1 ppm	Complies
Lead (Pb)	≤3 ppm	Complies
Mercury (hg)	≤0.1 ppm	Complies
Total Plate Count	≤1000 cfu/g	Complies
Yeast & Mould	≤100 cfu/g	Complies
Coliforms	Negative	Negative
E. Coli	Negative	Negative
Salmonella	Negative	Negative
Staphylococcus Aureus	Negative	Negative

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



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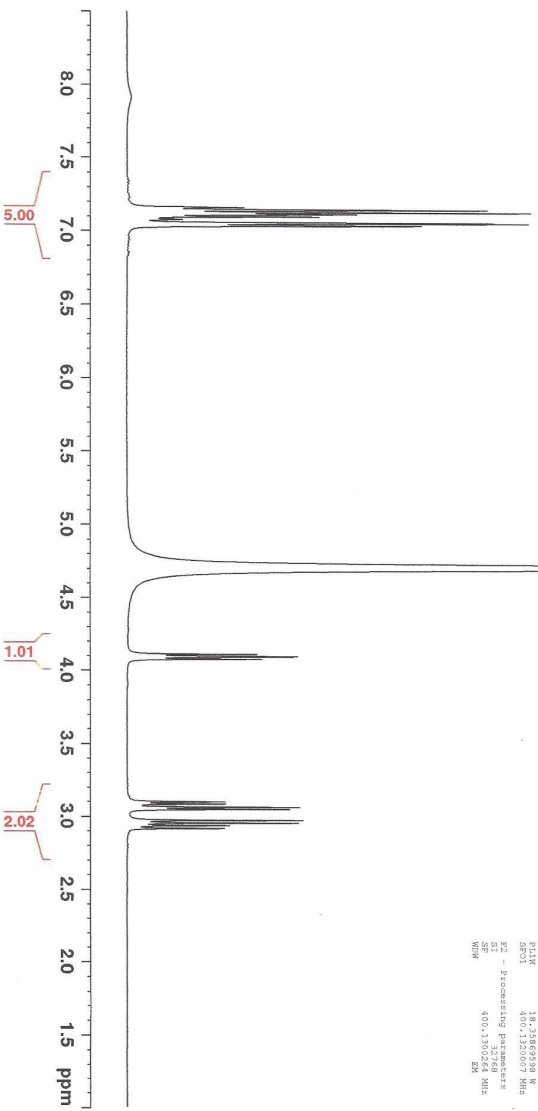
Product Name	DL-Phenylalanine	Client Lot Number	20161006
Report Date	03/10/17	Laboratory #	8328

Test	Method	Result
Identification	Proton NMR	Conforms
Phenibut HCL	CA-085 (HPLC-UV)	98.9 %
Arsenic	ICP-MS USP <730>	<0.001 ppm
Cadmium	ICP-MS USP <730>	<0.001 ppm
Lead	ICP-MS USP <730>	0.026ppm
Mercury	ICP-MS USP <730>	<0.001 ppm

Collin Thomas *CT*
Laboratory Manager

03/10/2017 *3/10/17*
Date

¹H NMR of DL-phenylalanine
 in D₂O + DCl
 Lot # 8328
 Colmaric Analytical
 400 MHz
 03-08-17



Current Data Parameters
 NAME: MATH8-2017--colmaric
 EXPNO: 1
 PROCNO: 1
 F2 - Acquisition Parameters
 Date_: 20170308
 Time: 11:00:00
 INSTRUM: spect
 PROCNM: 5 mm PABBO 5B-
 P1: 12.00
 TD: 65536
 SFO: 400.1464000
 NO: 202
 DS: 2
 DSI: 0
 FIDRES: 0.1595466 Hz
 AQ: 0.06000000 sec
 RG: 311.00
 DC: 48.3 sec
 DM: 96.00000000
 DE: 0.00000000
 TE: 298.0 K
 TZO: 1.65000000 sec
 BR1: CHANNEL F1
 NU1: 11.80000000
 P11: 1.10000000
 PL1: 2.50000000 dB
 SFO1: 400.1464000 MHz
 ZG1: 0.00000000
 PR - Processing parameters
 SI: 32768
 SF: 400.1464000 MHz
 NW: 400.1464000 MHz