



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

liftmode@liftmode.com
www.liftmode.com

CERTIFICATE OF ANALYSIS

L-Theanine (L-γ-glutamylethylamide)

Material Lot #: 20150307 / 1076531 Manufacture Date: 03/07/2015
Country of Origin: China Expiration Date: 06/14/2019

Analysis	Claim	Result
L-Theanine	≥99.0%	99.1%
Test	Specification	Result
Appearance	White Powder	Complies
Specific Rotation	(+7.5°)-(+8.5°)	+8.1°
Solution Color (1.0g/20ml)	Clear, Colorless	Complies
Chloride	<0.02%	Complies
Loss on Drying	<1.0%	0.5%
Residue on Ignition	<0.2%	Complies
PH	5.0-6.0	5.5
Heavy Metals	≤10 ppm	<5 ppm
Arsenic	≤1 ppm	<1 ppm
Assay	98.0%-102.0%	99.1%

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



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Product Name	L-Theanine	Client Lot Number	20150307
Report Date	06/15/17	Laboratory #	8813

Test	Method	Result
Assay	CA-028 (HPLC)	99.1%
Total Aerobic Count	Biolumix	<100 CFU/g
Yeast & Mold	Biolumix	<100 CFU/g
Salmonella	Biolumix	Negative
E. Coli	Biolumix	<10 CFU/g
Coliform	Biolumix	<10 CFU/g

Collin Thomas *CT*
Laboratory Manager

06/15/2017 *6/15/17*
Date



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COA No:	SCA-38114748-0
Supersedes:	None
COA Date	6/26/15
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Received From:	Costa Mesa, CA
Received Date:	6/22/15
P.O.#/ID:	4354
Location of Test: (except where noted)	Cypress, CA

Analytical Results

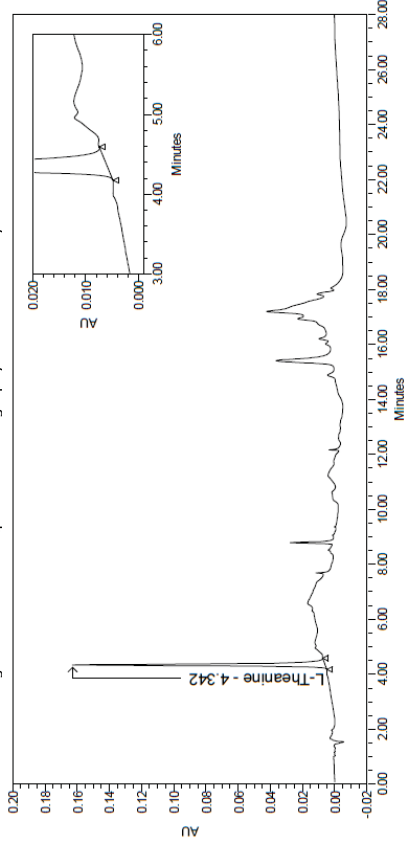
Desc. 1:	JAR16815SYNPF3_2-WSTA20150307	Laboratory ID:	354043722
Desc. 2:	L-Theanine	Condition Rec'd:	NORMAL
		Temp Rec'd (°C):	24.0
Analyte		Method Reference	Test Date Loc.
ICP MS Heavy Metals (4 analytes)		EPA 3050/6020 USF730	6/26/15 CHG
ICPMS Prep	Acid Digest -		
Arsenic	<0.01 ppm (w/w)		
Cadmium	<0.001 ppm (w/w)		
Lead	<0.01 ppm (w/w)		
Mercury	<0.005 ppm (w/w)		

Jorge Hernandez
Jorge Hernandez Laboratory Director

CERTIFICATE OF ANALYSIS

Sample Name: L-Theanine
Description: Powder; White fine powder
Lot #: WSTA20150307
AL #: JAR16815SYNPF3_1
Analysis ID: 57819
Received: 06/17/15

Determination of L-Theanine Content High Performance Liquid Chromatography with Diode Array Detection



Ret. Time (min)	Compound Name	Amount (µg)	Specification	Result
4.3	L-Theanine	101.6509	NLT 98%	Pass

Chromatographic Conditions:
Method: ATM-815-0034
Column: AP 92 Luna 5µm C18 (2) (150 x 4.6 mm)
Temperature: 35°C
Flow Rate: 1 mL/min
Injection Volume: 10 µL
UV Detection: 205 nm
Mobile Phase: 10mM SDS Acetonitrile:water:Phosphoric Acid (35:65:0.1; v/v/v)
HPLC Instrument: Alliance_4

Sample Preparation:
Transferred approximately 150 mg of sample into a 50 mL volumetric flask. Filled to volume with water and vortexed 30 seconds. Sonicated for 20 minutes at room temperature. Diluted 3:100 in water and filtered through 0.45µm PTFE syringe filter into HPLC vial for analysis.

Report Summary:
Conclusion: This "L-Theanine" sample contains 102% L-theanine.
OOS Reference: N/A
Notebook Reference: LC080 p. 81

Analysis Date : 06/29/15 Analyzed By: K Patel Authorized By: Holly E. Johnson, Ph.D., Senior Analytical Chemist