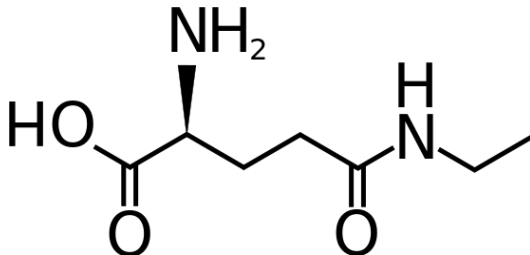


Certificate of Authenticity: L-Theanine

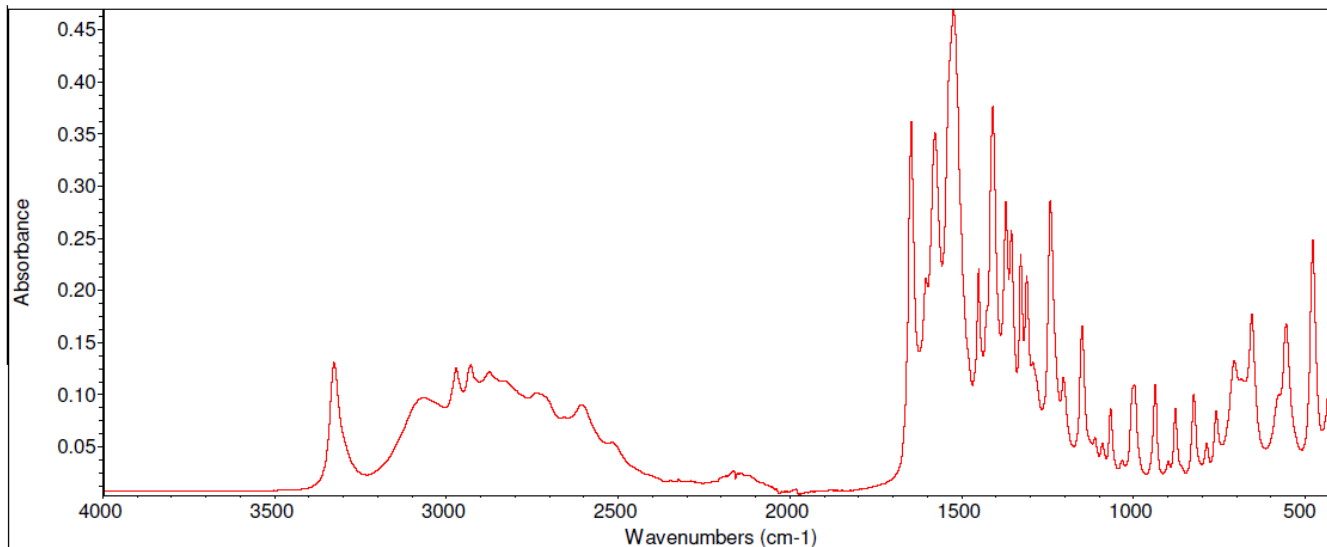
| | | |
|--------------------------|-------------|--|
| Product Name | L-Theanine |  |
| CAS | 3081-61-6 | |
| Batch Number | LTHGWI1116 | |
| Production Date | 10/31/2016 | |
| Expiration Date | 10/31/2018 | |
| Validation Method | FTIR, HPLC | |
| Specification | LC/MS, FTIR | |

| Analysis | Specification | Result | Method |
|----------------|-------------------------------------|--|------------------------|
| Appearance | White Fluffy Powder | Complies | Visual |
| Odor | Odorless | Complies | Organoleptic |
| Taste | Near Flavorless (Umami) | Complies | Organoleptic |
| Identification | (1)Spectrum | (1) Conforms | (1) FTIR |
| Specification | (1)Molecular Weight (2)Structure | (1) 174.20 g/mol (2) C ₇ H ₁₄ N ₂ O ₃ | (1) LC/MS (2) P-NMR |
| Assay | ≥99.0% | 99.8% | HPLC |
| Conclusion | Product complies to specifications | | |

ThermoFisher
SCIENTIFIC

Fri Aug 18 11:05:01 2017 (G)

L-Theanine LTHGWI1116



Number of sample scans: 64
 Number of background scans: 64
 Resolution: 4.000
 Sample gain: 1.0
 Optical velocity: 0.4747
 Aperture: 100.00

Spectrum: L-Theanine LTHGWI1116

Region: 3999.71-401.13

Search type: Correlation

Hit List:

| Index | Match | Compound name | Library |
|-------|--------|-----------------------------|----------------------------------|
| 464 | 100.00 | L-Theanine LTHGWI1116 | HR ATR |
| 22 | 99.89 | L-Theanine (99.7% HPLC) | HR ATR Centera |
| 598 | 99.82 | L-Theanine LTHGWI0217 | HR ATR |
| 236 | 99.75 | L-Theanine LTHGWI0216 | HR ATR |
| 538 | 99.74 | L-Theanine Caps LTHCTNK0217 | HR ATR |
| 516 | 99.68 | L-Theanine LTHGWI0516 | HR ATR |
| 165 | 99.67 | L-Theanine LTHPMX0614 | HR ATR |
| 553 | 99.65 | L-Theanine LTHGWI0217A | HR ATR |
| 13 | 99.56 | L-Theanine Lot# SLBM2272V | HR ATR Sigma Reference Materials |
| 164 | 99.54 | L-Theanine LTHPMX0214 | HR ATR |