



MP Biomedicals, LLC

29525 Fountain Parkway
Solon, Ohio 44139

Telephone: 440/337-1200
Toll Free: 800/854-0530

Fax: 440/337-1180
web: www.mpbio.com

Certificate of Analysis

Product Description: L-Tryptophan
Catalog Number: 103151
Lot: QR15606


Formula: C₁₁H₁₂N₂O₂
CAS #: 73-22-3
Physical Description: White Powder

Formula Weight: 204.2
Storage: 15 - 30°C

Test	Specification	Result
Identity Test	Passes	Passes
Purity	≥99%	99.2%
UV/Vis: □□ max (water)	278 ± 5 nm	279.3nm
FTIR	Conforms to Standard	Conforms to Standard
Optical Rotation (c=1, water)	-30° ± 10°	-32°
pH (1% aq soln)	5.5 - 7.0	6.5
Moisture	≤0.3%	0.18%
Residue on Ignition	≤0.1%	0.05%
Chloride	≤0.05%	<0.050%
Sulfate	≤0.03%	<0.03%
Iron	≤0.003%	<0.003%
Heavy Metals	≤0.0015%	<0.0015%

Arsenic: <1.0000 ppm
Cadmium: <1.0000 ppm
Lead: <1.0000 ppm
Mercury: <1.0000 ppm
Coliforms: <100 cfu/g
E. coli: Negative

Salmonella: Negative
Staphylococcus aureus: Negative
Total Plate Count: <100 cfu/g
Yeast & Mold: <100 cfu/g
Bulk Density: 0.13 g/ml
Mesh Size: >90% thru 20 mesh
Tap Density: 0.24 g/ml
Clarity of Solution: Clear
Organic Volatile Impurities: Meets requirements
Recommended Retest Date: 05/17/2020



05/21/2018 - John Huang, PhD
MP Biomedicals, LLC.
Quality Control Manager

This is an electronically generated document
<mailto:biotech@mpbio.com>
<http://www.mpbio.com>

Online Ordering, MSDSs, certificates of analysis and data sheets now available on our web site
Technical Service: 1-800-279-5490 (440-337-1200) Customer Service: 1-800-854-0530 (440-337-1200)