

Bio Basic Inc.

CERTIFICATE OF ANALYSIS

 $\begin{array}{lll} \text{Product} & \text{L-Tryptophan} \\ \text{Grade} & \text{USP Grade} \\ \text{Product Code} & \text{TB1911} \\ \text{Formula} & \text{C}_{11}\text{H}_{12}\text{N}_2\text{O}_2 \\ \text{MW} & 204.2 \\ \text{CAS\#} & 73\text{-}22\text{-}3 \\ \end{array}$

Lot#

Test Items	Specifications	Results
Appearance	White crystals or crystalline powder	
Identification (IR)	Concordant with the reference spectrum	
Purity	98.5-101.5%	
pH(1 [°] % water)	5.5-7.0	
Specific Rotation [α] ²⁵ _D	-29.4° to -32.8°	
Chloride	≤0.05%	
Sulfate	≤0.03%	
Iron	≤30ppm	
Heavy metals	≤15ppm	
Loss on Drying	≤0.30%	
Residue on Ignition	≤0.10%	
Organic volatile impurities	Meet the requirements	

Storage: Store at room temperature.