CERTIFICATE OF ANALYSIS

Product Description	L-LEUCINE
Product Number	L574
Lot Number	14J0574005
Storage Temperature	Room Temperature
Molecular Weight	131.2
Formula	$C_6H_{13}NO_2$
CAS Number	61-90-5

Physiochemical Specifications:

TEST	SPECIFICATION	RESULTS
Solubility	Soluble in Water @ 10 mg/mL	Passes
pH	Under Development	5.9
Physical Appearance Color* Texture	 RM-1 to RM-3, or RM-31 Flakey to Crystalline Powder	 PM-4 White Flakey Powder
Solution Appearance Clarity Color	 Clear Colorless	 Clear Colorless
Average Time to Dissolve	Within 5 min	Passes
Insolubles	None	Passes
Purity	Minimum 98.0%	99.7%
FTIR	Conforms to Structure	Passes
Heavy Metals	For Information Only	<15 ppm

* Product color based upon comparisons between sample and standardized color wheel (Benjamin Moore® Color Preview™).

Biological Testing:

Test Concentration: 50.0 mg/L

TEST SPECIFICATION	PLANT CELL LINE	RESULTS
Supports and/or facilitates plant growth and/or shoot proliferation in two or more plant tissue cultured lines with no morphological aberrations to plants	Tobacco Callus	Passes
	Hosta	Passes

The material described in this certificate is synthetic. No animal- or plant-derived components were used in the manufacture of this product.

***Phyto*Technology Laboratories® provides the above information intended to be used only as a guide to the appropriate handling of this material by a properly trained person. *Phyto*Technology Laboratories® shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.**

Recommended Shelf Life Date: September 2022

Gary Seckinger, Ph.D.

***Phyto*Technology Laboratories®**
Mailing Address: P.O. Box 12205, Shawnee Mission, KS 66282-2205
Phone: 1-888-749-8682 (1-913-341-5343 *Outside the USA & Canada*)
Fax: 1-888-449-8682 (1-913-341-5442 *Outside the USA & Canada*)
Visit our Web Site at http://www.phytotechlab.com

*Phyto*Technology Laboratories®
Dedicated to Growth

ISO 9001 REGISTERED FIRM

Created on 30 October 2014 JN