



# CERTIFICATE OF MATERIAL ORIGIN

Date: 1/31/2020

Revision: 03

**Product:** Poly-L-Ornithine, Solution, 0.1 mg/ml

<b>Supplier</b>	Advanced BioMatrix, Inc.
<b>Supplier Catalog No.</b>	5058
<b>Supplier Location</b>	California, USA
<b>Name/Grade</b>	Poly-L-Ornithine, Solution, 0.1 mg/ml
<b>Animal Origin (including human)</b>	
-Animal Species	Not applicable - This product is manufactured solely from synthetic materials and do not contain any raw materials produced or substances derived from animal origin.
-Tissue Origin	Not applicable
-County of Origin	Not applicable
<b>Non-animal Source of Origin</b>	
-Country of Origin	United States
<b>Animal Origin Material Adventitious</b>	Not applicable
<b>Agent Risk Reduction Steps</b>	
<b>Method of Manufacturing</b>	Synthetic Processing
<b>Briefly describe Method of Manufacturing</b>	Poly-L-Ornithine is a synthetic amino acid chain that is positively charged having one hydrobromide per unit of ornithine. The molecular weight of Poly-L-Ornithine for cell culture can vary significantly, with lower molecular weight (30,000 Da) being less viscous and higher molecular weight (greater than 300,000 Da) having more binding sites per molecule.

The above information has been completed by an authorized representative of management and is complete and correct to my knowledge.

President

January 31, 2020

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