



CERTIFICATE OF MATERIAL ORIGIN

Date: 1/31/2020

Revision: 03

Product: Poly-D-Lysine, Solution, 0.1 mg/ml

| | |
|---|---|
| Supplier | Advanced BioMatrix, Inc. |
| Supplier Catalog No. | 5049 |
| Supplier Location | California, USA |
| Name/Grade | Poly-D-Lysine, Solution, 0.1 mg/ml |
| Animal Origin (including human) | |
| -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 |
| Non-animal Source of Origin | |
| -Country of Origin | United States |
| Animal Origin Material Adventitious | Not applicable |
| Agent Risk Reduction Steps | |
| Method of Manufacturing | Synthetic Processing |
| Briefly describe Method of Manufacturing | Poly-D-lysine is a positively charged amino acid polymer with approximately one HBr per lysine residue. The hydrobromide allows the poly-D-lysine to be in a crystalline form soluble in water. A small amount of product may be found in the beta structure because the HBr interferes with hydrogen bonding between amino and either the carboxyl groups or N or O containing moieties. |

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

President

January 31, 2020

Corporate Headquarters
P.O. Box 502403
San Diego, CA 92150-2403

(800) 883-8220 (760) 929-0755
(510) 217-3452 Fax
www.advancedbiomatrix.com

Manufacturing Facility
5930 Sea Lion Place, Ste. 100
Carlsbad, CA 92010