

# Anthrax Lethal Factor (LF-A), Quality Documented Grade, Native Sequence, Recombinant from *Bacillus anthracis*

## Catalog No. NR-28544

This reagent is the property of the U.S. Government.

**Product Description:** Recombinant anthrax LF-A was produced in a non-sporulating avirulent strain of *Bacillus anthracis* lacking both of the wild type plasmids, pX01 and pX02. Recombinant LF-A was purified using conventional chromatographic techniques. The resulting purified protein lacks all other anthrax virulence factors. **LF-A has been reported to have 3-fold higher potency than LF-HMA in cell culture cytotoxicity assays and in rat lethality studies.**

**Lot:** 91691A1A

**Manufacturing Date:** 22JUN2011

TEST	SPECIFICATIONS	RESULTS
<b>Appearance<sup>1</sup></b>	Clear and colorless	Clear and colorless
<b>SDS-PAGE (Coomassie Blue Densitometer Scan)</b>	~ 80–90 kDa band is ≥ 90% of total density	~ 80–90 kDa band is 97% of total density
<b>Electrospray Mass Spectrometry</b>	90,226 ± 45 Da	90,246 Da
<b>N-Terminal Analysis</b>	Correct N-terminus to 6 residues	Correct N-terminus to 10 residues
<b>Concentration by Modified Bradford Assay<sup>1,2</sup></b>	Report results	0.90 mg per mL
<b>Functional Activity</b> Cleavage of MAPKKide®	Report results	0.156 units/mg
Cytotoxicity assay [determination of effective concentration (EC <sub>50</sub> ) by titration of LF-A in J774A.1 macrophage cells]	LF-A with 1 µg/mL PA: EC <sub>50</sub> ≤ 500 pM	14 pM
<b>Microbial Content</b>	No detectable colony-forming units	No detectable colony-forming units
<b>Endotoxin Content (Limulus Amoebocyte Lysate Assay)</b>	< 0.5 EU endotoxin per µg protein	0.0157 EU endotoxin per µg protein
<b>Absorbance Ratio (OD<sub>280</sub>/OD<sub>260</sub>)</b>	≥ 1.7	2.1
<b>Absorbance (OD<sub>320</sub>)</b>	≤ 10	0.0083

<sup>1</sup>Prior to lyophilization

<sup>2</sup>Using BSA as a standard

**Date:** 30 MAY 2017

**Signature:**



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