

**Anthrax Lethal Factor (LF-HMA), Recombinant from *Bacillus anthracis***

**Catalog No. NR-570**

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

**Product Description:** Recombinant anthrax LF-HMA was produced in a non-sporulating avirulent strain of *Bacillus anthracis* lacking both of the wild type plasmids, pX01 and pX02. Recombinant LF-HMA was purified using conventional chromatographic techniques. The resulting purified protein lacks all other anthrax virulence factors.

**Lot: 1724A1A**

**Manufacturing Date: 06AUG2004**

TEST	SPECIFICATIONS	RESULTS
Appearance <sup>1</sup>	Clear and colorless	Clear and colorless
SDS-PAGE (Coomassie Blue Densitometer Scan)	~ 80–90 kDa band is > 90% of total density	~ 80–90 kDa band is 96% of total density
HPLC	Report results (% of protein in full length peak)	66% of protein in full length peak
Electrospray Mass Spectrometry	Report results (expected MW is 90,496 Da)	90,493 Da
Concentration by Modified Bradford Assay <sup>1,2</sup>	Report results	1.0 mg per mL
Functional Activity FRET (fluorescence resonance energy transfer) protease assay  Cytotoxicity assay (determination of effective concentration (EC <sub>50</sub> ) by titration of LF-HMA in J774A.1 macrophage cells)	Report results (rate of cleavage of MAPKKide™ peptide)  LF-HMA with 1 µg/mL PA: EC <sub>50</sub> ≤ 500 pM 1 µg/mL LF-HMA alone: EC <sub>50</sub> ≥ 10,000 pM 1 µg/mL PA alone: EC <sub>50</sub> ≥ 10,000 pM	0.202 units/mg  EC <sub>50</sub> = 32 pM EC <sub>50</sub> ≥ 10,000 pM EC <sub>50</sub> ≥ 10,000 pM
Microbial Content	No detectable colony-forming units in 0.2 mL final product	No detectable colony-forming units in 0.2 mL final product
Endotoxin Content (Limulus Amoebocyte Lysate Assay)	< 0.50 EU endotoxin per µg protein	0.12 EU endotoxin per µg protein
Absorbance Ratio (OD <sub>280</sub> /OD <sub>260</sub> )	≥ 1.7	1.8
Absorbance Ratio (OD <sub>280</sub> /OD <sub>320</sub> )	≥ 10	12

<sup>1</sup>Prior to lyophilization

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

**Date:** 05 JUL 2012

**Signature:** 

**Title:** Technical Manager, BEI Authentication or designee

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