

Bacillus anthracis* Edema Factor (Native Sequence), Recombinant from *Escherichia coli

Catalog No. NR-13413

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

Product Description: The native protein sequence of *Bacillus anthracis* (*B. anthracis*) edema factor (EF) was expressed in *Escherichia coli* and purified by ion exchange chromatography.

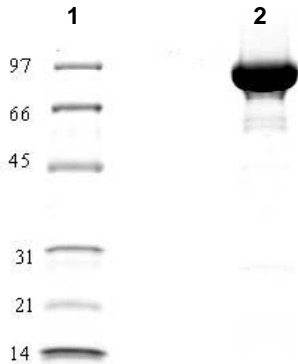
Lot: 58582679

Manufacturing Date: 15JUN2009

TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless	Clear and colorless
SDS-PAGE (SYPRO Orange densitometer scan)	Protein band of interest represents > 95% of total staining intensity	Protein band of interest represents 98% of total staining intensity (Figure 1)
SELDI-TOF Mass Spectrometry	Measured mass within 5% of expected mass based on amino acid sequence (88821 Da)	Measured mass within 0.3% of expected mass based on amino acid sequence (89110 Da)
SELDI-TOF Mass Spectrometry of Protease Digested Precursor Protein	> 50% of total residues accounted for in peptides of expected mass	53% of total residues accounted for in peptides of expected mass
Concentration by Spectrophotometer at OD₂₈₀ (ε = 0.942)	Report results	1 mg/mL
Enzymatic Activity Rate of conversion of cAMP to ATP in the presence of calmodulin and pyrophosphate (50 mM)	Report results	3.15 ± 0.68 s ⁻¹ mmol ⁻¹ EF
Functional Activity by Western Blot¹ (Figure 2) Recombinant <i>B. anthracis</i> EF (NR-13413) Bovine serum albumin (BSA)	Reactive Nonreactive	Reactive Nonreactive
Endotoxin Content (Limulus Amoebocyte Lysate assay)	1 to 10000 EU/mg	60 EU/mg

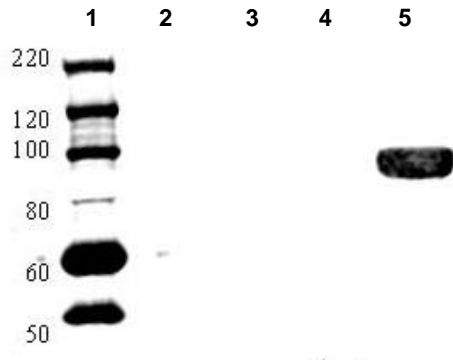
¹Using goat polyclonal antibody to *B. anthracis* EF (Santa Cruz Biotech: sc-17416) at a 1:1000 dilution

**Figure 1: SDS-PAGE of NR-13413
(4 – 20 % Gradient Gel with Coomassie Staining)**



Lane 1: BioRad Low Range Molecular Weight Standards (161-0304) in kDa
Lane 2: NR-13413

Figure 2: Western Blot of NR-13413



Lane 1: MagicMark™ XP Western Protein Standard in kDa (Invitrogen™ LC5602)
Lane 2: Blank
Lane 3: 5 µg of BSA
Lane 4: Blank
Lane 5: 5 µg of NR-13413

Date: 27 AUG 2009

Signature: Signature on File

Title: Technical Manager, BEI Authentication or designee

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