

PRODUCT INFORMATION



Anthrax Edema Factor (EF) (recombinant from *Bacillus anthracis*) Item No. 28210

Overview and Properties

Contents: Each vial, when reconstituted with 100 µl of water, contains 0.1 mg of edema factor from *Bacillus anthracis* in 5 mM HEPES, 50 mM NaCl, pH 7.5

Storage: 4°C (as supplied); -20°C or -80°C (after reconstitution); avoid freeze/thaw cycles

Stability: ≥2 years

Purity: ≥95% (estimated by SDS-PAGE)

Special Conditions: Handle gently; do not vortex

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

Anthrax edema factor (EF) is a component of edema toxin (EdTx) produced by *B. anthracis*.^{1,2} It is comprised of an N-terminal protective antigen (PA) binding domain (PABD), an adenylyl cyclase domain, and a helical domain.² Inactive EF binds oligomerized *B. anthracis* PA on the host cell surface. EF and PA, together known as EdTx, are endocytosed by the host cell, after which PA facilitates translocation of EF into the host cell cytoplasm. There, calmodulin binds the EF helical domain and activates its adenylyl cyclase activity, leading to an increase in intracellular cAMP.

References

1. Liu, S., Moayeri, M., and Leppla, S.H. Anthrax lethal and edema toxins in anthrax pathogenesis. *Trends Microbiol.* **22(6)**, 317-325 (2014).
2. Tang, W.-J. and Guo, Q. The adenylyl cyclase activity of anthrax edema factor. *Mol. Aspects Med.* **30(6)**, 423-430 (2009).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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