Adenylate Cyclase (Bordetella pertussis), functional

01-501        50 μg

Storage: Shipped with ice-pack or dry-ice and store at -20°C or -80°C (for longer period).

Applications:
1) Functional studies on the cAMP signaling pathway (10~100 ng/ml)
2) Antigen for western blotting and ELISA
3) SDS-PAGE marker as native adenylate cyclase

Form: 550 μg/ml in 50 mM Tris-HCl(pH8.0), 6M urea, 150 mM NaCl

Purity: More than 90% purity by SDS-PAGE (CBB staining)

Activity tested: Addition of the 10~100 ng/ml adenylate cyclase toxin to medium increased significant levels of cellular cAMP levels in CHO and human monocyte cells (2) as examined by Biotrak cAMP EIA System of GE Healthcare Bioscience. Adenylate cyclase is a toxin produced by a gram-negative coccobacillus, *Bordetella pertussis*. This toxin penetrates into the animal cells and produces cAMP from ATP in the cytoplasm. It belongs to the RTX family of toxins produced by many gram-negative bacteria. The molecular weight is 177 kDa.

This product is a recombinant toxin of *Bordetella pertussis* Tohama strain expressed in *E. coli* from the structural gene *cyaA* and its activator gene *cyaC* (Ref 2) and purified by the method of Friedman (Ref. 1)

Data Link: UniProtKB/Swiss-Prot P0DKX7

References:

*No overt mouse toxicity was observed by intravenous injection of 50 μg of adenylate cyclase toxin (Friedman R. L. *Infect Immun* 55:129-134 (1987)) No toxicity for human is known. * For research use only, not to be used for human application.

Fig.1 SDS polyacrylamide gel electrophoresis of adenylate cyclase toxin. 8% gel. Left lane, is size maker proteins shown in kDa.