

Adenylate Cyclase from *Bordetella pertussis*

Catalog No. NR-34572

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Product Description: Native adenylate cyclase was purified from *Bordetella pertussis* by conventional chromatography.

Lot: 60649606

Manufacturing Date: 17JUL2012

TEST	SPECIFICATIONS	RESULTS
Appearance	White powder	White powder
SDS-PAGE (Non-Reducing Conditions)	Major band of ~ 200 kDa ≥ 80% pure	Major band of ~ 200 kDa 84% pure
Protein Content by Spectrophotometer at OD₂₈₀ Using Extinction Coefficient¹⁻³	50 µg ± 7.5 µg per vial	50 µg per vial
Functional Activity Dot blot using antibody to adenylate cyclase Enzymatic activity ⁴ Cytotoxicity in mouse J774 macrophage/monocyte cells ⁵	Reactive Report results Report results	Reactive 160 µmoles of cAMP/min/mg protein Minimal

¹Karimova, G., et al. "Charge-Dependent Translocation of *Bordetella pertussis* Adenylate Cyclase Toxin into Eukaryotic Cells: Implication for the *In Vivo* Delivery of CD8(+) T Cell Epitopes into Antigen-Presenting Cells." *Proc. Natl. Acad. Sci. U.S.A.* 95 (1998): 12532-12537. PubMed: 9770520.

²Extinction coefficient used was 0.8 at 280 nm for 1 mg/mL (molar extinction coefficient 142 000 M⁻¹ cm⁻¹)

³Determined on bulk material prior to lyophilization

⁴Determined by a modification of the method of Hewlett, E. L., et al. "Adenylate Cyclase Toxin from *Bordetella pertussis*. Identification and Purification of the Holotoxin Molecule." *J. Biol. Chem.* 264 (1989): 19379-19384. PubMed: 2553737.

⁵Since each cell type exhibits a different sensitivity, cytotoxicity should be assessed by the end user.

Date: 25 OCT 2012

Signature: 

Title: Technical Manager, BEI Authentication or designee

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