

# Diphtheria Toxin Mutant CRM197

01-515 200 μg

This Diphtheria toxin CRM197 was highly purified from growth media of Corynebacterium diphtheriae mutant CRM197. CRM197 like wild-typediphtheria toxin is a single polypeptide chain of 535 amino acids (58 kD) consisting of two subunits linked by disulfide bridges . Binding to the cell surface of the less stable of these two subunits allows the more stable part of the protein to penetrate the host cell. Wild-type toxin catalyzes the ADP-ribosylation of eucaryotic elongation factor-2 (eEF2) by using NAD, thus inactivating this protein. However, CRM197 has an alteration of 52<sup>nd</sup> Gly to Glu and it has no ADP ribosylation activity nor toxicity to cells.

# **Applications**

- 1) CRM197 retains activity to bind the receptor, HB-EGF (Heparin-Binding EGF-like Growth Factor) and inhibits the growth-stimulating activity of HB-EGF (Ref.1)
- 2) Putative drug for treatment of malignant tumors such as ovarian tumor, which secretes higher levels of HB-EGF (Ref 2).

## **Specifications**

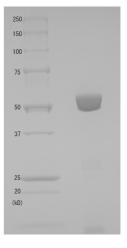
Purity: More than 95% pure (see below; SDS-PAGE without

## mercaptoethanol)

Form: 2 mg/ml in 20 mM Tris-Hcl (pH 7.2), 150 mM NaCl Storage: -70 $^{\circ}$ C

## References

- 1. Mitamura T. et al. J. Biol. Chem. 272: 27084 (1997)
- 2. Miyamoto S. et al. Cancer Res 64:5720 (2004)
- \* Research use only, not for human application.



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