

Recombinant Pasteurella Multocida ToxA Protein, His-tagged

Cat. No. PAS-533 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Pasteurella multocida toxin (active) is derived from a recombinant ToxA with N-terminal 6xHis-tag expressed in E. coli. Manufactured for studies on the GTP trimer bound protein- dependent signaling pathway and as a PMT antigen for immunological assays such as ELISA, western blotting and dot blotting.

Tag

His

Background

Pasteurella multocida is a frequent commensal of the respiratory tract of animals. As a facultative pathogen, it can lead to severe and economically important diseases, such as shipping fever in cattle, snuffles in rabbits, and fowl cholera in poultry and is a zoonotic disease caused by scratches, bites, and saliva from pet animals such as cats and dogs (Harper et al., 2006; Wilkie et al., 2012). One of the major virulence factors of P. multocida is the protein toxin PMT (P. multocida toxin), which is produced by serogroup D and some A strains. PMT is the causative agent to induce atrophic rhinitis in pigs, characterized by shortening and twisting of the snout due to the loss of nasal turbinate bones (Horiguchi, 2012).

PMT activates various heterotrimeric G proteins and many are substrates of the toxin. The 146- kDa toxin PMT comprises 1,285 amino acids (aa) (Orth & Aktories, 2012). Different domains of PMT are involved in cell uptake and intracellular action. The receptor binding and translocation domains are located in the N terminus (aa 1 to 574). Whereas the receptor binding domain has not been characterized in detail, two amphipathic helices, covering residues 402 to 457, are suggested to be involved in membrane insertion and translocation (Baldwin et al., 2004). So far, the cell surface receptor of PMT is not known (Brothers et al., 2011). PMT can be utilized as a

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transporter to carry a non-cell-permeating protein (DTa) as a fusion protein into the cytosol of host cells (Bergmann et al., 2013).

Purity

>90% purity by SDS-PAGE (CBB staining).

Notes

This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.

Type

Recombinant

ClassID 1

Infectious Disease

GENE INFORMATION**Synonyms**

Pasteurella Multocida Toxin

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