**Pasteurella multocida Toxin (Active)**

01-507  50μg

**Storage:** Ship at 4°C or −20°C and store at −20°C  
(or −80°C for long period).

**Applications:**
1) For the studies on the GTP trimer bound protein-dependent signaling pathway  
2) As a PMT antigen for immunological assays such as ELISA, western blotting and dot blotting.

**Form:** 50% glycerol, 5mM Tris·HCl(pH7.5), 0.1M NaCl  
**Purity:** More than 90% purity by SDS-PAGE (CBB staining)  
**Protein Concentration:** 370 μg/ml  
**Biological Activity Assayed:** See Figures below. *Research use only, not for human use.

**Background:** Pasteurella multocida toxin (PMT) is produced by a gram-negative bacillus, Pasteurella multocida. PMT activates the Gq and G12/13 dependent signaling pathways. Gq and G12/13 are alpha subunits of the GTP trimer bound protein of animal cells. It does not activate the highly related G11-dependent pathways. This toxin binds to a ganglioside-type cell surface receptor, acts intracellularly after having been internalized through an endocytic pathway, and has pleiotropic effects on cell physiology. Therefore it does not function on receptor-deficient cells or cells defective in the endocytosis pathway.

PMT is encoded by the toxA gene of *P. multocida*. This product is derived from a recombinant ToxA with His6-tag at N-terminus expressed in *E. coli*. Its molecular weight is 145 kDa (Fig.1)

*Research use only, not for human use*

**Data Link**  UniProtKB/Swiss-Prot P17452 (TOXA_PASMU)

**References:**

![Fig.1 SDS-polyacrylamide gel electrophoresis of PMT](image-url)
MATERIAL SAFETY DATA SHEET

**Hazardous Ingredients:** Recombinant *Pasteurella multocida* toxin with His6-tag (MGH6DYDIPTENLYFQGAHMG) attached to N-terminal of the toxin (first methionin removed).

**Physical Properties:** The material is provided as liquid solution in 50% glycerol, 5mM Tris-HCl (pH 7.5), and 0.1M NaCl

**Fire and Explosion Hazard Data:** Not applicable

**Health Hazard:**
The LD50 in mice is 0.5 μg/kg when injected parenterally (Cheville, N.F. and Rimler, R.B., *Vet. Pathol.* 26: 148-157, 1989). Toxicity data for humans is not available.

Target organ(s): Liver and Lungs. If topical contact occurs, flush with copious amounts of water. For internal exposure, consult a physician.

**Spill or Leak Procedures:**

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Fig. 2. Assay of Biological activity of PMT:
Mouse embryonic cells (Swiss 3T3) were treated with PMT at 10 ng/ml at 37°C for 18 h.
Left; untreated cells. Right, Treated cells; Foci formation by aggregation of cells was observed.
If a spill occurs, cover with a damp cloth or paper towel. Wipe up and autoclave this material. Further, clean the area with 5% bleach. Solutions may be inactivated by autoclaving at 121°C and 15 psi for 15 minutes or by heating to 56°C for 30 minutes.

**Special Protection Information:**
Wear safety glasses, protective clothing, and rubber or latex gloves. and when handling hypodermic needles avoid inadvertent selfinoculation. Do not pipette by mouth. Avoid inhalation of this product.

**Special Procedures:**
This product is to be used by skilled personnel in a laboratory setting only. Good laboratory technique should be employed. This product is for research purposes only. It is not for use in humans and is not to be used as a diagnostic agent

**Contact to Producer:**
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