

PRODUCT INFORMATION



Pertussis Toxin from *Bordetella pertussis* (in glycerol)

Item No. 23220

Overview and Properties

Contents: Each vial contains 50 µg of pertussis toxin in 50% glycerol, 0.05 M Tris, 0.01 M glycine, 0.5 M sodium chloride, pH 7.5, at a concentration of 0.15 mg/ml. Mix gently prior to use to ensure a uniform suspension. **Do not sterile filter, as this will result in loss of material.**

Storage: -20°C (as supplied)

Stability: ≥4 years

Purity: ≥95% (estimated by SDS-PAGE)

Special Conditions: Handle gently; do not vortex

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

Pertussis toxin was first isolated from *B. pertussis* and is used to study G protein-coupled receptor signaling in cells and experimental autoimmune encephalomyelitis (EAE) in animals. Pertussis toxin catalyzes the transfer of the ADP-ribose moiety of NAD to the α subunits of heterotrimeric $G_{i/o}$ proteins, resulting in the receptors being uncoupled from $G_{i/o}$ proteins.^{1,2} Pertussis toxin is also used as an adjuvant, given with specific antigens, to immunize animals and induce EAE, an animal model of multiple sclerosis.^{3,4}

References

1. Kaslow, H.R. and Burns, D.L. Pertussis toxin and target eukaryotic cells: Binding, entry, and activation. *FASEB J.* **6**(9), 2684-2690 (1992).
2. Ui, M. Islet-activating protein, pertussis toxin: A probe for functions of the inhibitory guanine nucleotide regulatory component of adenylate cyclase. *Trends Pharmacol. Sci.* **5**, 277-279 (1984).
3. Davenport, K.R., Smith, C.A., Hofstetter, H., *et al.* Site-directed immobilization of a genetically engineered anti-methotrexate antibody via an enzymatically introduced biotin label significantly increases the binding capacity of immunoaffinity columns. *J. Chromatogr. B. Analyt. Technol. Biomed. Life Sci.* **1021**, 114-121 (2016).
4. Ronchi, F., Basso, C., Preite, S., *et al.* Experimental priming of encephalitogenic Th1/Th17 cells requires pertussis toxin-driven IL-1 β production by myeloid cells. *Nat. Commun.* **7**:11541, (2016).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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