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DATASHEET

Pertussis Toxin

Product overview

Name	Pertussis Toxin
Cat No	HB4729
Alternative names	PTX | PT | Islet-activating protein | Holotoxin
Biological action	Activator
Purity	>98%
Description	Catalyzes ADP-ribosylation of the G proteins $G\alpha_i$, $G\alpha_o$ and $G\alpha_t$

Biological Data

Biological description	Toxin produced by *Bordetella pertussis* . Catalyzes ADP-ribosylation of the α subunits of the heterotrimeric $G_{i/o}$ proteins; $G\alpha_i$, $G\alpha_o$ and $G\alpha_t$. Blocks receptor coupling and activation by preventing G protein heterotrimers from interacting with receptors. This product is not activated. Cells will activate pertussis toxin in an intact system however activation is required in a cell free system. Incubation with high concentrations of dithiothreitol (DTT) can achieve activation, see Kaslow, et al. (1987) for suggested conditions.

Solubility & Handling

Storage instructions	+4°C for lyophilised or resuspended (do not freeze)
Handling	Use solutions within 1 month, long term storage is not recommended. Before use the suspension should be gently mixed (not vortexed) to make the suspension uniform. Do not sterile filter.
Important	Pertussis toxin can be inactivated by boiling for 30mins This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

CAS Number	70323-44-3
Source	B. pertussis
Appearance	Lyophilised
Formulation	Contains 0.05M sodium phosphate and 0.5M sodium chloride at pH 7.2.

References

Subunit structure of islet-activating protein, pertussis toxin, in conformity with the A-B model.

Tamura et al (1982) Biochemistry 21(22)
PubMedID 6293544

Structure-activity analysis of the activation of pertussis toxin.

Kaslow et al (1987) Biochemistry 26(1)
PubMedID 3030399

G(i/o) protein-dependent and -independent actions of Pertussis Toxin (PTX).

Mangmool and Kurose (2011) Toxins (Basel) 3(7)
PubMedID 22069745