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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 >98%

Description Catalyzes ADP-ribosylation of the G proteins Ga_i , Ga_o and Ga_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

Handling

+4°C for lyophilised or resuspended (do not freeze)

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.

Pertussis toxin can be inactivated by boiling for 30mins

Shipping Conditions

Important

Stable for ambient temperature shipping. Follow storage instructions on receipt.

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