


Pertussis Toxin

Publication Number MAN0004270

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| Catalog Number: | PHZ1174 |
| Quantity: | 50 µg |
| Lot Number: | See product label. |
| Appearance: | Lyophilized solid. |
| Origin: | Bordetella pertussis. |
| Purity: | >99%. This preparation migrates as five distinct bands when analyzed by SDS-Urea PAGE. The five bands correspond to one A protomer subunit, designated S1 (M_r =26.2 kDa), and four B oligomer subunits, designated S2-S5 (M_r 's= 21.9, 21.9, 12.1, and 10.9 kDa, respectively). |
| Summary: | Islet-activating protein Pertussis toxin consists of an A protomer subunit (S1) which possesses both NAD ⁺ glycohydrolase and ADP-ribosyltransferase activities, and B oligomer subunits (S2, S3, S4, and S5) which are responsible for attachment of the native toxin to eukaryotic cell surfaces. Pertussis toxin uncouples G proteins from receptors by ADP ribosylating a cysteine residue near the carboxyl terminus of the α subunit. |
| Biological Activity: | The lowest concentration which produces a clustered growth pattern with CHO cells is 0.03 ng/mL. The adenylate cyclase activity of this preparation is 20.1 picomoles/minute/µg in the presence of 1 µg calmodulin. |
| Reconstitution Recommendation: | <p>Reconstitute the contents of this vial with 500 µL sterile, distilled water. The composition of the solution will be 50 µg Pertussis toxin, 10 mM sodium phosphate, pH 7.0, 50 mM sodium chloride. Because Pertussis toxin is relatively insoluble, the resulting suspension should be made uniform by gentle mixing prior to withdrawing aliquots. It is important to note that this suspension should not be sterile-filtered.</p> <p>This preparation is not activated. For use with intact cells or extracts, activation is not necessary. However, when used with purified G proteins, this preparation should be activated according to the procedure of Kaslow et al., 1987.</p> |
| Storage: | Store, as supplied, at 2°C to 8°C. Upon reconstitution, apportion into working aliquots and store at 2°C to 8°C. Suspensions are stable at 2°C to 8°C for up to six months. DO NOT FREEZE. |
| Expiration Date: | Expires one year from date of receipt when stored as instructed. |
| References: | <p>Kaslow, H.R., et al. (1987) Structure-activity analysis of the activation of pertussis toxin. <i>Biochemistry</i> 26(1):123-127.</p> <p>McGrew, L., et al. (2002) Phospholipase D activation by endogenous 5-hydroxytryptamine 2C receptors is mediated by Galpha13 and pertussis toxin-insensitive Gbetagamma subunits. <i>Mol. Pharmacol.</i> 62(6):1339-1343.</p> <p>Bagley, K.C., et al. (2002) Pertussis toxin and the adenylate cyclase toxin from Bordetella pertussis activate human monocyte-derived dendritic cells and dominantly inhibit cytokine production through a cAMP-dependent pathway. <i>J. Leukoc. Biol.</i> 72(5):962-969.</p> <p>Molina-Holgado, E., et al. (2002) Cannabinoids promote oligodendrocyte progenitor survival: involvement of cannabinoid receptors and phosphatidylinositol-3 kinase/Akt signaling. <i>J. Neurosci.</i> 22(22):9742-9753.</p> |
|  | Avoid contact with eyes, skin, and mucous membranes. Wear protective clothing when handling this product. Not for human use. |







Related Products:

| Product | Catalog no. |
|--------------------------|-------------|
| Akt/PKB [pS473] antibody | 44-622G |

Explanation of Symbols

The symbols present on the product label are explained below:

| Symbol | Description |
|---|---|
|  | Catalog Number |
|  | Research Use Only |
|  | Use by |
|  | Manufacturer |
|  | Without, does not contain |
|  | Protect from light |
|  | Directs the user to consult instructions for use (IFU), accompanying the product. |

| Symbol | Description |
|---|--|
|  | Batch code |
|  | In vitro diagnostic medical device |
|  | Temperature limitation |
|  | European Community authorized representative |
|  | With, contains |
|  | Consult accompanying documents |

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