Recombinant Bordetella pertussis Pertussis toxin subunit 1

Catalog No: #AP72959

Package Size: #AP72959-1 20ug #AP72959-2 100ug #AP72959-3 1mg

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Description

Product Name	Recombinant Bordetella pertussis Pertussis toxin subunit 1
Brief Description	Recombinant Protein
Host Species	Yeast
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:35-269aaSequence Info:Full Length
Other Names	Islet-activating protein S1 ;IAP S1NAD-dependent ADP-ribosyltransferase (EC:2.4.2.-)
Accession No.	P04977
Uniprot	P04977
GeneID	2665068;
Calculated MW	28.2 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	DDPPATVYRYDSRPPEDVFQNGFTAWGNNDNVLDHLTGRSCQVGSSNSAFVSTSSSRRYTEVYLEHRMQEA VEAERAGRGTGHFIGYIYEVRADNNFYGAASSYFEYVDTYGDNAGRILAGALATYQSEYLAHRRIPPENIRRVT RVYHNGITGETTTTEYSNARYVSQQTRANPNPYTSRRSVASIVGTLVRMAPVIGACMARQAESSEAMAAWSE RAGEAMVLVYYESIAYSF
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

S1 is an NAD-dependent ADP-ribosyltransferase, which plays a crucial role in the pathogenesis of B.pertussis causing disruption of normal host cellular regulation. It catalyzes the ADP-ribosylation of a cysteine in the alpha subunit of host heterotrimeric G proteins. In the absence of G proteins it also catalyzes the cleavage of NAD+ into ADP-ribose and nicotinamide. It irreversibly uncouples the G-alpha GTP-binding proteins from their mbrane receptors.

References

Wang Y., Zhang S., Lei D. Bordetella pertussis toxin gene encoding subunit S1.Mallya A.D., Kumar M., Reddy M.N., Seshubabu B., Deobagkar D.D., Kapre S.V. Comparative analysis of the genome sequences of Bordetella pertussis, Bordetella parapertussis and Bordetella bronchiseptica.Parkhill J., Sebaihia M., Preston A., Murphy L.D., Thomson N.R., Harris D.E., Holden M.T.G., Churcher C.M., Bentley S.D., Mungall K.L., Cerdeno-Tarraga A.-M., Temple L., James K.D., Harris B., Quail M.A., Achtman M., Atkin R., Baker S. , Basham D., Bason N., Cherevach I., Chillingworth T., Collins M., Cronin A., Davis P., Doggett J., Feltwell T., Goble A., Hamlin N., Hauser H., Holroyd S., Jagels K., Leather S., Moule S., Norberczak H., O'Neil S., Ormond D., Price C., Rabbinowitsch E., Rutter S., Sanders M., Saunders D., Seeger K., Sharp S., Simmonds M., Skelton J., Squares R., Squares S., Stevens K., Unwin L., Whitehead S., Barrell B.G., Maskell D.J.Nat. Genet. 35:32-40(2003)Research Topic:Others

Note: This product is for in vitro research use only