Product Data Sheet

Product Name:	Chitinase Protein
Cat. No.:	GP21479
Batch No.:	1

Product Data

Purity	>98%	Source	Escherichia Coli.
Phycical Appearance	solid	Shipping Condition	Shipped at Room temp.
Amino Acid Sequence	MRGSGSHHHH HHMYYGDWSI WGGQGNFYPK DIPADKLTHL NFAFMDFNSS GELIYCDKDA AIGHPLGNLG VTYGDVNGGI LNAFQVLKSE NPNLKIGVSL GGWSKSGDFS TIAATPSIRA KFVENVMKFI KYTNMDFVDI DWEYPGDYRE PDKTDNINDE GTPNASAGDK ENYILLLQDL KEALNKQGKE LGKVYELSVA LPAGVSKIEK GIDVDKLFNI VDFANIMTYD MAGAWSTTSG HQTALYTNPN APEEYKGLSV DESVKYYISQ GAEREKIVVG AAYYTRGWEQ VSDKGTDPNN PGLFGEAAVV NKDADLSPTP GALNEAPMKN GEGGRAGGVW GYNALDKLKS KYTGLKEYWD DSAKAPYLYN SETGAFFTYD NIRSIQEKAK YVKENNLGGI IGWMASQDAT TNSTKRDELT TATKESLFGK EDLPKYEIKY TENDITCTVT PVKQSWGSGG VLKMSITNNE KLDESGEVLS TVETSAKTVK NMKVYIKTDG IAITGSQYPA GPVTKEGDYY VIDFGKISDG KLMKAGITFT FDLNLDKAIE DTNNIISIEV SQRMYQTSPE FNRQTIWENT NS.		
Solubility	It is recommended to reconstitute the lyophilized Chitinase in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Chitinase lyophilized from a 0.2µm filtered concentrated solution in PBS.		

Introduction

Chitinase is a digestive enzyme which breaks down glycosidic bonds in chitin. Due to chitin being a component of the cell walls of fungi and exoskeletal elements of some animals (including worms and arthropods), chitinases are usually found in organisms that either need to remake their own chitin or to dissolve and digest the chitin of fungi or animals. Chitinivorous organisms include many bacteria genuses such as Aeromonas, Bacillus, Vibrio, among others, which may be pathogenic or detritivorous. Chitinase expression is mediated by the NPR1 gene and the salicylic acid pathway, both of which

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are involved in resisting fungal and insect attack. Human chitinases appear in gastric juices. They are likely to be digestive chitinases, for catabolic activity. Chitinase activity is identified systemically in humans, in the blood, and possibly cartilage. Chitinase has been related to allergies, asthma in particular has been linked to enhanced chitinase expression levels, also dust mites and mold spores which are both chitin covered.

Stability

Lyophilized Chitinase although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution Chitinase should be stored at 4°C between 2-7 days and for future use below -18°C .For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.

Background

Chitinase Clostridium Paraputrificum Recombinant fused with a His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 582 amino acids and having a molecular mass of 64.2kDa.The Chitinase is purified by proprietary chromatographic techniques.