

Datasheet for ABIN7195100

Chitotriosidase 1 Protein (His tag)[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	Chitotriosidase 1 (CHIT1)
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Chitotriosidase 1 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human Chitotriosidase/CHIT1 Protein (His Tag)
Sequence:	Met 1-Asn 466
Characteristics:	A DNA sequence encoding the human CHIT1 (NP_003456.1) (Met 1-Asn 466) precursor was fused with a polyhistidine tag at the C-terminus.
Purity:	> 94 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.

Target Details

Target:	Chitotriosidase 1 (CHIT1)
Alternative Name:	Chitotriosidase/CHIT1 (CHIT1 Products)
Background:	Background: Chitotriosidase, also known as Chitinase-1 and CHIT1, is a member of the glycosyl hydrolase 18 family and Chitinase class II subfamily. It is a member of the mammalian chitinase family, structurally homologous to chitinases from other species, is synthesized and

Target Details

secreted by specifically activated macrophages. Chitotriosidase is a polymer of N-acetylglucosamine. Serum and plasma chitotriosidase activity is usually measured as the first step in diagnosis of Gaucher disease. Monitoring chitotriosidase activity is widely used during treatment of this pathology by enzyme replacement therapy. Its elevated plasma level reflects gradual intralysosomal accumulation in Gaucher cells (lipid-loaded macrophages). Macrophages overloaded by the enzyme accumulated in lysosomal material (lipids) were shown to secrete chitotriosidase, its increased expression was noted in several lysosomal storage diseases and atherosclerosis. In addition to lipid storage disorders, where Chit activity has longer been used as a marker of disease activity and therapeutic response, elevation of plasma Chit may occur in hematological disorders with storage of erythrocyte membrane breakdown products as thalassemia and different systemic infectious diseases sustained by fungi and other pathogens. Recently, increased Chit activity was demonstrated in CNS from patients with different neurological disorders. Chitotriosidase is believed to play a role in mechanisms of immunity and protection against chitin-containing pathogens.

Synonym: Chitotriosidase-1, Chitinase-1, CHIT1,CHI3,CHIT,CHITD

Molecular Weight:	50.8 kDa
NCBI Accession:	NP_003456

Application Details

Restrictions:	For Research Use only
---------------	-----------------------

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile 12.5 mM Tris, 75 mM NaCl, 50 % glycerol, pH 7.5
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.