Immunoway
Best Tools for immunology Research

Chitotriosidase Monoclonal Antibody

Catalog No :	YM0152
Reactivity :	Human
Applications :	WB;ELISA
Target :	Chitotriosidase
Fields :	>>Amino sugar and nucleotide sugar metabolism;>>Metabolic pathways
Gene Name :	CHIT1
Protein Name :	Chitotriosidase-1
Human Gene Id :	1118
Human Swiss Prot No :	Q13231
Mouse Swiss Prot No :	Q9D7Q1
Immunogen :	Purified recombinant fragment of Chitotriosidase (aa22-137) expressed in E. Coli.
Specificity :	Chitotriosidase Monoclonal Antibody detects endogenous levels of Chitotriosidase protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	WB 1:500 - 1:2000. ELISA: 1:10000. Not yet tested in other applications.
Purification :	Affinity purification
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Molecularweight :	52kD

Cell Pathway : Amino sugar and nucleotide sugar metabolism;

P References :

1. Sarcoidosis Vasc Diffuse Lung Dis. 2007 Mar;24(1):59-64.
2. Clin Biochem. 2007 Mar;40(5-6):365-9.

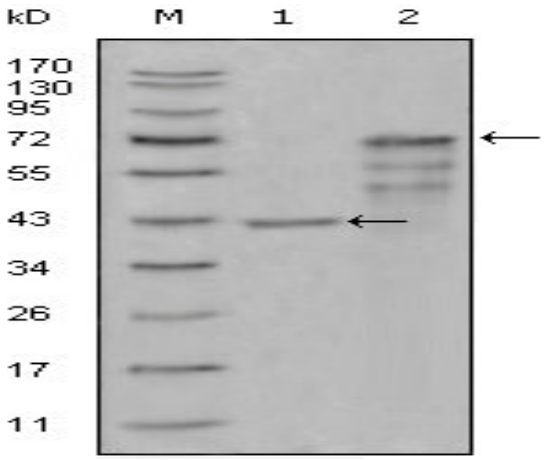
Background : Chitotriosidase is secreted by activated human macrophages and is markedly elevated in plasma of Gaucher disease patients. The expression of chitotriosidase occurs only at a late stage of differentiation of monocytes to activated macrophages in culture. Human macrophages can synthesize a functional chitotriosidase, a highly conserved enzyme with a strongly regulated expression. This enzyme may play a role in the degradation of chitin-containing pathogens. Several alternatively spliced transcript variants have been described for this gene. [provided by RefSeq, Jan 2012],

Function : catalytic activity:Random hydrolysis of N-acetyl-beta-D-glucosaminide (1->4)-beta-linkages in chitin and chitodextrins.,disease:Very high plasma levels of CHIT1 are found in patients with Gaucher disease type 1 (GD I). This can be used as diagnostic aid and to evaluate the success of treatment. Successful therapy brings the CHIT1 activity levels back to normal.,function:Degrades chitin and chitotriose. May participate in the defense against nematodes and other pathogens. Isoform 3 has no enzymatic activity.,polymorphism:A 24 bp duplication in exon 10 leads to the activation of an alternative splice site and the production of an inactive protein. About 6% of the population are deficient for CHIT1 activity, while 35% are carriers and show reduced enzyme levels. People with CHIT1 deficiency appear perfectly healthy.,similarity:Belongs to the glycosyl hydrolase 18 family.,similarity:Belongs

Subcellular Location : Secreted. Lysosome. A small proportion is lysosomal.

Expression : Detected in spleen. Secreted by cultured macrophages.

Products Images



Western Blot analysis using Chitotriosidase Monoclonal Antibody against truncated Trx-CHIT1 recombinant protein (1) and truncated CHIT1 (aa22-466)-hIgGFc transfected CHO-K1 cell lysate (2).