

## Chitotriosidase Monoclonal Antibody

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

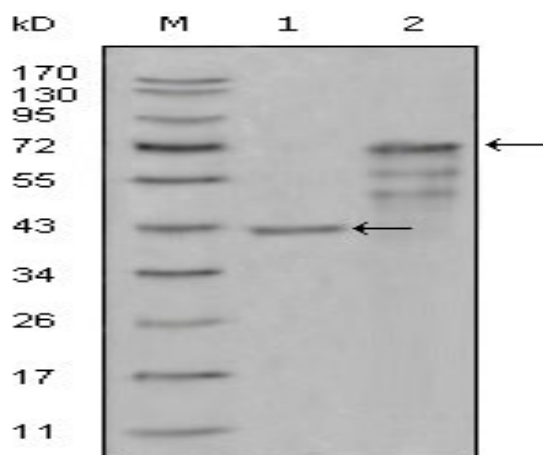
**Background :** Chitotriosidase is secreted by activated human macrophages and is markedly elevated in plasma of Gaucher disease patients. The expression of chitotriosidase occurs only at a late stage of differentiation of monocytes to activated macrophages in culture. Human macrophages can synthesize 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)-hlgGfc transfected CHO-K1 cell lysate (2).