

Chitotriosidase Monoclonal Antibody

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| 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.

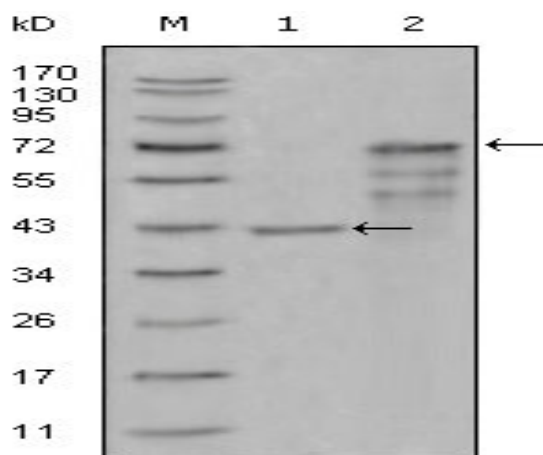
Background : Chitotriosidase is secreted by activated human macrophages and is markedly elevated in plasma of Gaucher disease patients. The expression of chitotriosidase occurs only at a late stage of differentiation of monocytes to activated macrophages in culture. Human macrophages can synthesize a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