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HEXA Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1693a

Product Information

Application	WB, FC, E
Primary Accession	P06865
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3F10
Isotype	IgG2b
Calculated MW	60703
Description	This gene encodes the alpha subunit of the lysosomal enzyme beta-hexosaminidase that, together with the cofactor GM2 activator protein, catalyzes the degradation of the ganglioside GM2, and other molecules containing terminal N-acetyl hexosamines. Beta-hexosaminidase is composed of two subunits, alpha and beta, which are encoded by separate genes. Both beta-hexosaminidase alpha and beta subunits are members of family 20 of glycosyl hydrolases. Mutations in the alpha or beta subunit genes lead to an accumulation of GM2 ganglioside in neurons and neurodegenerative disorders termed the GM2 gangliosidoses. Alpha subunit gene mutations lead to Tay-Sachs disease (GM2-gangliosidosis type I).
Immunogen	Purified recombinant fragment of human HEXA expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	3073
Other Names	Beta-hexosaminidase subunit alpha, 3.2.1.52, Beta-N-acetylhexosaminidase subunit alpha, Hexosaminidase subunit A, N-acetyl-beta-glucosaminidase subunit alpha, HEXA
Dilution	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HEXA Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HEXA (HGNC:4878)
Function	Hydrolyzes the non-reducing end N-acetyl-D-hexosamine and/or sulfated N-acetyl-D-hexosamine of glycoconjugates, such as the oligosaccharide moieties from proteins and neutral glycolipids, or from certain mucopolysaccharides (PubMed:11707436, PubMed:8123671, PubMed:8672428, PubMed:9694901). The isozyme S is as active as the isozyme A on the anionic bis-sulfated glycans, the chondroitin-6- sulfate trisaccharide (C6S-3), and the dermatan sulfate pentasaccharide, and the sulfated glycosphingolipid SM2 (PubMed:11707436). The isozyme B does not hydrolyze each of these substrates, however hydrolyzes efficiently neutral oligosaccharide (PubMed:11707436). Only the isozyme A is responsible for the degradation of GM2 gangliosides in the presence of GM2A (PubMed:8123671, PubMed:8672428, PubMed:9694901).
Cellular Location	Lysosome.

References

Clin Biochem. 2009 Jul;42(10-11):1187-9. Pediatr Res. 2010 Feb;67(2):217-20.

Images

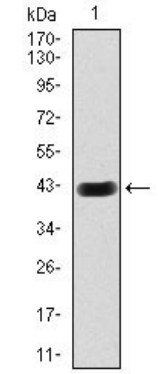


Figure 1: Western blot analysis using HEXA mAb against human HEXA (AA: 29-181) recombinant protein. (Expected MW is 43.1 kDa)

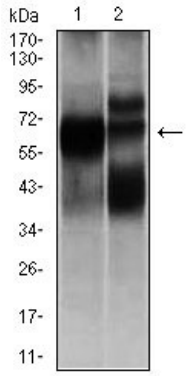
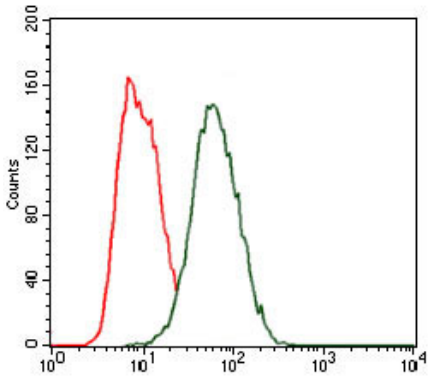


Figure 2: Western blot analysis using HEXA mouse mAb against L1210 (1), and HL7702 (2) cell lysate.

Figure 3: Flow cytometric analysis of HeLa cells using HEXA mouse mAb (green) and negative control (red).



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