GM2A Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	GM2A, Polyclonal Antibody
Full Product Name	GM2A, NT (GM2A, Ganglioside GM2 activator, Cerebroside sulfate activator protein, GM2-AP, Shingolipid activator protein 3, Ganglioside GM2 activator isoform short) (MaxLight 750)
Product Gene Name	anti-GM2A antibody
Product Synonym Names	GM2A; Ganglioside GM2 activator; Cerebroside sulfate activator protein; GM2-AP; Shingolipid activator protein 3; Ganglioside GM2 activator isoform short
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight750.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight750 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	20,838 Da
OMIM	272750
3D Structure	ModBase 3D Structure for P17900
Immunogen	GM2A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 32-62 amino acids from the N-terminal region of human GM2A.
Conjugate	MaxLight750
Note	Preservative Free
Product Categories/Family for anti-GM2A antibody	Antibodies; Gangliosides
Applications Tested/Suitable for anti-GM2A antibody	Western Blot (WB), FLISA
Application Notes for anti-GM2A antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-GM2A antibody	MaxLight750 is a new Near IR stable dye conjugate comparable to DyLight750, Alexa Fluor700 and offers better labeling efficiency, brighter imaging and increased immunodetection. Absorbance (759nm); Emission (780nm); Extinction Coefficient 240,000.
Other Notes	Small volumes of anti-GM2A antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for GM2A purchase	MBS6302796 is an antibody targeting GM2A. Also known as GM2A, NT (GM2A, Ganglioside GM2 activator, Cerebroside sulfate activator protein, GM2-AP, Shingolipid activator protein 3, Ganglioside GM2 activator isoform short) (MaxLight 750). Reactive in Human, Mouse. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GM2A. It may not necessarily be applicable to this product.

NCBI GI #	39995109
NCBI GeneID	2760
NCBI Accession #	NP_000396.2
UniProt Primary Accession #	P17900
UniProt Secondary Accession #	Q14426; Q14428; Q6LBL5; B2R699; D3DQH6
UniProt Related Accession #	P17900
GenBank Nucleotide #	NM_000405.4
NCBI Official Full Name	ganglioside GM2 activator isoform 1
NCBI Official Synonym Full Names	GM2 ganglioside activator
NCBI Official Symbol	GM2A
NCBI Official Synonym Symbols	SAP-3; GM2-AP
UniProt Protein Name	Ganglioside GM2 activator
UniProt Synonym Protein Names	Cerebroside sulfate activator protein; GM2-AP; Sphingolipid activator protein 3
Protein Family	Ganglioside GM2 activator
UniProt Gene Name	GM2A
UniProt Synonym Gene Names	SAP-3
UniProt Entry Name	SAP3_HUMAN
NCBI Protein Information	ganglioside GM2 activator; shingolipid activator protein 3; sphingolipid activator protein 3; cerebroside sulfate activator protein
NCBI Summary for GM2A	This gene encodes a small glycolipid transport protein which acts as a substrate specific co-factor for the lysosomal enzyme beta-hexosaminidase A. Beta-hexosaminidase A, together with GM2 ganglioside activator, catalyzes the degradation of the ganglioside GM2, and other molecules containing terminal N-acetyl hexosamines. Mutations in this gene result in GM2-gangliosidosis type AB or the AB variant of Tay-Sachs disease. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Nov 2009]

UniProt Comments for GM2A	GM2A: The large binding pocket can accommodate several single chain phospholipids and fatty acids, GM2A also exhibits some calcium-independent phospholipase activity. Binds gangliosides and stimulates ganglioside GM2 degradation. It stimulates only the breakdown of ganglioside GM2 and glycolipid GA2 by beta-hexosaminidase A. It extracts single GM2 molecules from membranes and presents them in soluble form to beta- hexosaminidase A for cleavage of N-acetyl-D-galactosamine and conversion to GM3. Defects in GM2A are the cause of GM2-gangliosidosis type AB (GM2GAB); also known as Tay-Sachs disease AB variant. GM2-gangliosidosis is an autosomal recessive lysosomal storage disease marked by the accumulation of GM2 gangliosides in the neuronal cells. GM2GAB is characterized by GM2 gangliosides accumulation in the presence of both hexosaminidase A and B. Protein type: Mitochondrial; Activator Chromosomal Location of Human Ortholog: 5q33.1 Cellular Component: lysosomal lumen; internal side of plasma membrane; apical cortex; mitochondrion; hydrogen:potassium-exchanging ATPase complex Molecular Function: lipid transporter activity; beta-N-acetylgalactosaminidase activity; phospholipase activator activity Biological Process: sequestering of lipid; oligosaccharide catabolic process; sphingolipid metabolic process; learning and/or memory; ganglioside catabolic process; positive regulation of hydrolase activity; glycosphingolipid metabolic process; lipid transport; neuromuscular process controlling balance Disease: Gm2-gangliosidosis, Ab Variant
Research Articles on GM2A	**1.** In vitro assays with the isolated H1 or H2 homodimers (beta-alpha hybrid construct of beta-hexosaminidase A subunits) confirmed that neither was capable of human GM2AP-dependent hydrolysis of GM2 ganglioside.
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