GM2A Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	GM2A, Polyclonal Antibody
Full Product Name	GM2A Conjugated Antibody
Product Gene Name	anti-GM2A antibody
Product Synonym Names	SAP-3; GM2-AP
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Specificity	The antibody detects endogenous levels of total GM2A protein.
Preparation and Storage	Store at 4 degree C for 6 months.
Molecular Weight	20,838 Da
OMIM	272750
3D Structure	ModBase 3D Structure for P17900
Immunogen	Fusion protein of human GM2A
Conjugation	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Excitation Emission	AF350: 346nm/442nm
Applications Tested/Suitable for anti-GM2A antibody	Most Applications
Application Notes for anti-GM2A antibody	Suggested Dilution: AF350 conjugated: most applications: 1:50-1:250 AF405 conjugated: most applications: 1:50-1:250 AF488 conjugated: most applications: 1:50-1:250 AF555 conjugated: most applications: 1:50-1:250 AF594 conjugated: most applications: 1:50-1:250 AF647 conjugated: most applications: 1:50-1:250 AF680 conjugated: most applications: 1:50-1:250 AF750 conjugated: most applications: 1:50-1:250 Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1:50-1:1000
Related Product Information for anti-GM2A antibody	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.
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	MBS9451303 is an antibody targeting GM2A. Also known as GM2A Conjugated Antibody. 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 #	38197023
NCBI GeneID	2760
NCBI Accession #	BC009273
UniProt Primary Accession #	P17900
UniProt Secondary Accession #	Q14426; Q14428; Q6LBL5; B2R699; D3DQH6
UniProt Related Accession #	P17900
NCBI Official Full Name	Homo sapiens GM2 ganglioside activator, mRNA
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
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.** Mobilization of membrane lipids by GM2AP was also inhibited in the presence of cholesterol or SM, as revealed by surface plasmon resonance studies

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