NANS Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	NANS, Monoclonal Antibody
Full Product Name	NANS (Sialic Acid Synthase, N-Acetylneuraminate Synthase, N-acetylneuraminic Acid Synthase, N-acetylneuraminate-9-phosphate Synthase, N-acetylneuraminic Acid Phosphate Synthase, SAS) (MaxLight 750)
Product Gene Name	anti-NANS antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	3G6
Host	Mouse
Species Reactivity	Human
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.
Specificity	Recognizes human NANS.
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	40,308 Da
OMIM	605202
3D Structure	ModBase 3D Structure for Q9NR45
Immunogen	Partial recombinant corresponding to aa260-360 from human NANS (NP_061819) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	AELVRSVRLVERALGSPTKQLLPCEMACNEKLGKSVVAKVKIPEGTILTMDMLTVKVGEPKGYPPEDIFNLVGKKVLVTVEEDDTIMEELVDNHGKKIKS
Conjugate	MaxLight750
Product Categories/Family for anti-NANS antibody	Antibodies; Enzymes; Synthase
Applications Tested/Suitable for anti-NANS antibody	FLISA, Western Blot (WB)
Application Notes for anti-NANS antibody	Applications are based on unconjugated antibody.

Related Product Information for anti-NANS antibody	This gene encodes an enzyme that functions in the biosynthetic pathways of sialic acids. In vitro, the encoded protein uses N-acetylmannosamine 6-phosphate and mannose 6-phosphate as substrates to generate phosphorylated forms of N-acetylneuraminic acid (Neu5Ac) and 2-keto-3-deoxy-D-glycero-D-galacto-nononic acid (KDN), respectively; however, it exhibits much higher activity toward the Neu5Ac phosphate product. In insect cells, expression of this gene results in Neu5Ac and KDN production. This gene is related to the E. coli sialic acid synthase gene neuB, and it can partially restore sialic acid synthase activity in an E. coli neuB-negative mutant. [provided by RefSeq]
Other Notes	Small volumes of anti-NANS 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 NANS purchase	MBS6234045 is an antibody targeting NANS. Also known as NANS (Sialic Acid Synthase, N-Acetylneuraminate Synthase, N-acetylneuraminic Acid Synthase, N-acetylneuraminate-9-phosphate Synthase, N-acetylneuraminic Acid Phosphate Synthase, SAS) (MaxLight 750). Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

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

NCBI GI #	12056473
NCBI GeneID	54187
NCBI Accession #	NP_061819
UniProt Primary Accession #	Q9NR45
UniProt Secondary Accession #	Q8WUV9; Q9BWS6; Q9NVD4; B2RE98
UniProt Related Accession #	Q9NR45
GenBank Nucleotide #	NM_018946
NCBI Official Full Name	sialic acid synthase
NCBI Official Synonym Full Names	N-acetylneuraminate synthase
NCBI Official Symbol	NANS
NCBI Official Synonym Symbols	SAS; SEMDG; SEMDCG; HEL-S-100
UniProt Protein Name	Sialic acid synthase
UniProt Synonym Protein Names	N-acetylneuraminate synthase (EC:2.5.1.56); N-acetylneuraminate-9-phosphate synthase (EC:2.5.1.57); N-acetylneuraminic acid phosphate synthase; N-acetylneuraminic acid synthase
Protein Family	Probable 9-O-acetyl-N-acetylneuraminic acid deacetylase
UniProt Gene Name	NANS
UniProt Synonym Gene Names	SAS
UniProt Entry Name	SIAS_HUMAN
NCBI Protein Information	sialic acid synthase

UniProt Comments for NANS	NANS: Produces N-acetylneuraminic acid (Neu5Ac) and 2-keto-3- deoxy-D-glycero-D-galacto-nononic acid (KDN). Can also use N- acetylmannosamine 6-phosphate and mannose 6-phosphate as substrates to generate phosphorylated forms of Neu5Ac and KDN, respectively. Protein type: EC 2.5.1.57; Carbohydrate Metabolism - amino sugar and nucleotide sugar; Transferase; EC 2.5.1.56 Chromosomal Location of Human Ortholog: 9p24.1-p23 Cellular Component: cytoplasm; cytosol Molecular Function: N-acylneuraminate-9-phosphate synthase activity; N-acetylneuraminate synthase activity; N-acylneuraminate cytidylyltransferase activity Biological Process: cellular protein metabolic process; dolichol-linked oligosaccharide biosynthetic process; lipopolysaccharide biosynthetic process; protein amino acid N-linked glycosylation via asparagine; post-translational protein modification
Research Articles on NANS	**1.** NANS deficiency is associated with defect in brain and skeletal development.
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