NEU1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	NEU1, Polyclonal Antibody
Full Product Name	NEU1, ID (NEU1, NANH, Sialidase-1, Acetylneuraminyl hydrolase, G9 sialidase, Lysosomal sialidase, N-acetyl-alpha-neuraminidase 1) (MaxLight 405)
Product Gene Name	anti-NEU1 antibody
Product Synonym Names	NEU1; NANH; Sialidase-1; Acetylneuraminyl hydrolase; G9 sialidase; Lysosomal sialidase; N-acetyl-alpha-neuraminidase 1
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
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: MaxLight405 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
OMIM	256550
3D Structure	ModBase 3D Structure for Q99519
Immunogen	NEU1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 188-214 amino acids from the Central region of human NEU1.
Conjugate	MaxLight405
Note	Preservative Free
Product Categories/Family for anti-NEU1 antibody	Antibodies; Enzymes; Glycosidase
Applications Tested/Suitable for anti-NEU1 antibody	Western Blot (WB), FLISA
Application Notes for anti-NEU1 antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-NEU1 antibody	The protein encoded by this gene is a lysosomal enzyme that cleaves terminal sialic acid residues from substrates such as glycoproteins and glycolipids. In the lysosome, this enzyme is part of a heterotrimeric complex together with beta-galactosidase and cathepsin A (the latter is also referred to as 'protective protein'). Mutations in this gene can lead to sialidosis, a lysosomal storage disease that can be type 1 (cherry red spot-myoclonus syndrome or normosomatic type), which is late-onset, or type 2 (the dysmorphic type), which occurs at an earlier age with increased severity.
Product References and Citations for anti-NEU1 antibody	Caciotti, A., et al. J. Neurol. 256(11):1911-1915(2009). Bonten, E.J., et al. J. Biol. Chem. 284(41):28430-28441(2009). Barcellos, L.F., et al. PLoS Genet. 5 (10), E1000696 (2009): Wang, J., et al. J. Neurochem. 111(2):547-554(2009). Lai, S.C., et al. Eur. J. Neurol. 16(8):912-919(2009).

Other Notes	Small volumes of anti-NEU1 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 NEU1 purchase	MBS6324745 is an antibody targeting NEU1. Also known as NEU1, ID (NEU1, NANH, Sialidase-1, Acetylneuraminyl hydrolase, G9 sialidase, Lysosomal sialidase, N-acetyl-alpha-neuraminidase 1) (MaxLight 405). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NEU1. It may not necessarily be applicable to this product.

NCBI GI #	4557791
NCBI GeneID	4758
NCBI Accession #	NP_000425.1
UniProt Primary Accession #	Q99519
UniProt Related Accession #	Q99519
GenBank Nucleotide #	NM_000434.3
NCBI Official Full Name	sialidase-1
NCBI Official Synonym Full Names	sialidase 1 (lysosomal sialidase)
NCBI Official Symbol	NEU1
NCBI Official Synonym Symbols	NEU; NANH; SIAL1
UniProt Protein Name	Sialidase-1
UniProt Synonym Protein Names	Acetylneuraminyl hydrolase; G9 sialidase; Lysosomal sialidase; N-acetyl-alpha-neuraminidase 1
Protein Family	Sialidase
UniProt Gene Name	NEU1
UniProt Synonym Gene Names	NANH
UniProt Entry Name	NEUR1_HUMAN
NCBI Protein Information	sialidase-1; G9 sialidase; N-acetyl-alpha-neuraminidase 1; acetylneuraminyl hydrolase; exo-alpha-sialidase; lysosomal sialidase

UniProt Comments for NEU1	NEU1: Catalyzes the removal of sialic acid (N-acetylneuramic acid) moities from glycoproteins and glycolipids. To be active, it is strictly dependent on its presence in the multienzyme complex. Appears to have a preference for alpha 2-3 and alpha 2-6 sialyl linkage. Defects in NEU1 are the cause of sialidosis (SIALIDOSIS). It is a lysosomal storage disease occurring as two types with various manifestations. Type 1 sialidosis (cherry red spot-myoclonus syndrome or normosomatic type) is late-onset and it is characterized by the formation of cherry red macular spots in childhood, progressive debilitating myoclonus, insiduous visual loss and rarely ataxia. The diagnosis can be confirmed by the screening of the urine for sialyloligosaccharides. Type 2 sialidosis (also known as dysmorphic type) occurs as several variants of increasing severity with earlier age of onset. It is characterized by the presence of abnormal somatic features including coarse facies and dysostosis multiplex, vertebral deformities, mental retardation, cherry-red spot/myoclonus, sialuria, cytoplasmic vacuolation of peripheral lymphocytes, bone marrow cells and conjunctival epithelial cells. Belongs to the glycosyl hydrolase 33 family. Protein type: EC 3.2.1.18; Motility/polarity/chemotaxis; Glycan Metabolism - other glycan degradation; Hydrolase; Lipid Metabolism - sphingolipid Chromosomal Location of Human Ortholog: 6p21.3 Cellular Component: lysosomal lumen; intracellular membrane-bound organelle; lysosome; lysosomal membrane; cytoplasmic membrane-bound vesicle; plasma membrane; cell junction Molecular Function: exo-alpha-sialidase activity Biological Process: oligosaccharide catabolic process; cellular protein metabolic process; sphingolipid metabolic process; dolichol-linked oligosaccharide biosynthetic process; protein amino acid N-linked glycosylation via asparagine; glycosphingolipid metabolic process; post-translational protein modification; lipid catabolic process Disease: Neuraminidase Deficiency
Research Articles on NEU1	**1.** The lymphocyte levels of NEU1 and ST6GAL1 mRNA expression are significantly increased in erythremia.
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