10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NEU1/Neuraminidase Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP59051

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q99519
Reactivity	Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	45467
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NEU1/Neuraminidase
Epitope Specificity	151-250/415
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Lysosome membrane. Lysosome lumen. Cell membrane. Cytoplasmic vesicle. Localized not only on the inner side of the lysosomal membrane and in the lysosomal lumen, but also on the plasma membrane and in intracellular vesicles.
SIMILARITY	Belongs to the glycosyl hydrolase 33 family. Contains 4 BNR repeats.
SUBUNIT	Interacts with cathepsin A (protective protein),beta-galactosidase and N-acetylgalactosamine-6-sulfate sulfatase in a multienzyme complex.
Post-translational modifications	N-glycosylated. Phosphorylation of tyrosine within the internalization signal results in inhibition of sialidase internalization and blockage on the plasma membrane.
DISEASE	Defects in NEU1 are the cause of sialidosis (SIALIDOSIS) [MIM:256550]. 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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. [provided by RefSeq, Jul 2008]

Additional Information

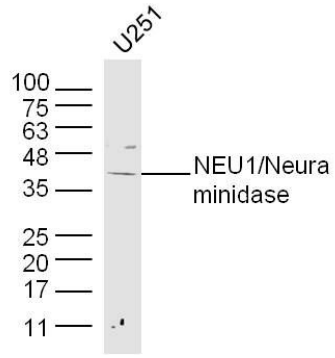
Gene ID	4758
Other Names	Sialidase-1, 3.2.1.18, Acetylneuraminyl hydrolase, G9 sialidase, Lysosomal sialidase, N-acetyl-alpha-neuraminidase 1, NEU1, NANH
Target/Specificity	Highly expressed in pancreas, followed by skeletal muscle, kidney, placenta, heart, lung and liver. Weakly expressed in brain.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

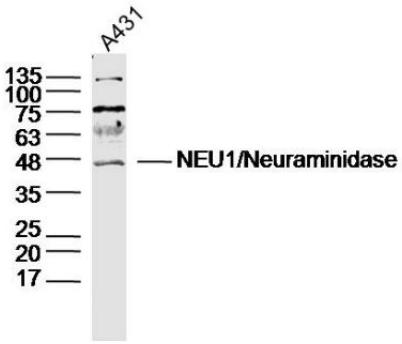
Protein Information

Name	NEU1
Synonyms	NANH
Function	Catalyzes the removal of sialic acid (N-acetylneuraminic acid) moieties 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.
Cellular Location	Lysosome membrane; Peripheral membrane protein; Lumenal side. Lysosome lumen. Cell membrane. Cytoplasmic vesicle Lysosome. Note=Localized not only on the inner side of the lysosomal membrane and in the lysosomal lumen, but also on the plasma membrane and in intracellular vesicles
Tissue Location	Highly expressed in pancreas, followed by skeletal muscle, kidney, placenta, heart, lung and liver. Weakly expressed in brain.

Images

Sample:U251 (human)cell Lysate at 40 ug
Primary: Anti-NEU1/Neuraminidase(AP59051)at 1/300 dilution
Secondary: IRDye800CW Goat Anti-RabbitIgG at 1/20000 dilution
Predicted band size: 45kD
Observed band size: 45kD





Sample: A431 Cell (Human) Lysate at 40 ug
Primary: Anti-NEU1/Neuraminidase (AP59051)at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 45kD
Observed band size: 45kD