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NEU4 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10385b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q8WWR8
Other Accession	NP_001161072.1, NP_542779.2, NP_001161074.1, NP_001161071.1, NP_001161073.1
Reactivity	Human, Mouse
Predicted	Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB28070
Calculated MW	51572
Antigen Region	423-452

Additional Information

Gene ID	129807
Other Names	Sialidase-4, N-acetyl-alpha-neuraminidase 4, NEU4
Target/Specificity	This NEU4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 423-452 amino acids from the C-terminal region of human NEU4.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NEU4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NEU4 (HGNC:21328)
Function	Exo-alpha-sialidase that catalyzes the hydrolytic cleavage of the terminal sialic acid (N-acetylneuraminic acid, Neu5Ac) of a glycan moiety in the

	catabolism of glycolipids, glycoproteins and oligosaccharides. Efficiently hydrolyzes gangliosides including alpha- (2->3)-sialylated GD1a and GM3 and alpha-(2->8)-sialylated GD3 (PubMed:15213228, PubMed:15847605, PubMed:21521691). Hydrolyzes poly- alpha-(2->8)-sialylated neural cell adhesion molecule NCAM1 likely at growth cones, suppressing neurite outgrowth in hippocampal neurons (By similarity). May desialylate sialyl Lewis A and X antigens at the cell surface, down-regulating these glycan epitopes recognized by SELE/E selectin in the initiation of cell adhesion and extravasation (PubMed:21521691). Has sialidase activity toward mucin, fetuin and sialyllactose (PubMed:15847605).
Cellular Location	[Isoform 1]: Cell membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein. Mitochondrion membrane; Peripheral membrane protein. Cell projection, neuron projection {ECO:0000250|UniProtKB:Q8BZL1} Note=Predominantly associates with endoplasmic reticulum membranes Only a small fraction associates with mitochondrial and plasma membranes.
Tissue Location	[Isoform 1]: Predominant form in liver. Also expressed in brain, kidney and colon.

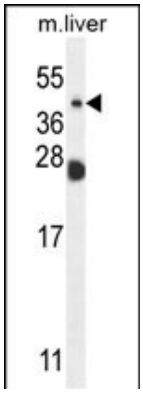
Background

The protein encoded by this gene belongs to a family of glycohydrolytic enzymes, which remove terminal sialic acid residues from various sialo derivatives, such as glycoproteins, glycolipids, oligosaccharides, and gangliosides. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene.

References

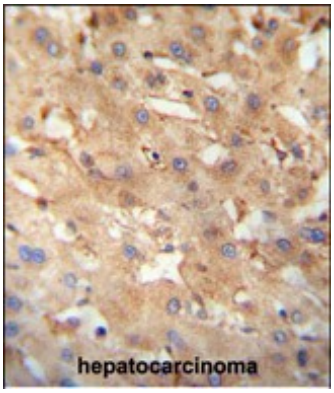
Bigi, A., et al. Glycobiology 20(2):148-157(2010)
Xin, X., et al. Genome Res. 19(7):1262-1269(2009)
Miyagi, T., et al. Proteomics 8(16):3303-3311(2008)
Stamatos, N.M., et al. FEBS J. 272(10):2545-2556(2005)
Hillier, L.W., et al. Nature 434(7034):724-731(2005)

Images



NEU4 Antibody (C-term) (Cat. #AP10385b) western blot analysis in mouse liver tissue lysates (35ug/lane).This demonstrates the NEU4 antibody detected the NEU4 protein (arrow).

NEU4 antibody (C-term) (Cat. #AP10385b) immunohistochemistry analysis in formalin fixed and paraffin embedded human hepatocarcinoma followed by peroxidase conjugation of the secondary antibody and



DAB staining. This data demonstrates the use of the NEU4 antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.