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NEU2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12189A

Product Information

Application	WB, IHC-P-Leica, IF, FC, E
Primary Accession	Q9Y3R4
Other Accession	NP_005374.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB32244
Calculated MW	42254
Antigen Region	23-50

Additional Information

Gene ID	4759
Other Names	Sialidase-2, Cytosolic sialidase, N-acetyl-alpha-neuraminidase 2, NEU2
Target/Specificity	This NEU2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 23-50 amino acids from the N-terminal region of human NEU2.
Dilution	WB~~1:1000 IHC-P-Leica~~1:250 IF~~1:10~50 FC~~1:10~50 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	NEU2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NEU2
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 oligosacharides

(PubMed:14613940, PubMed:22228546). Recognizes sialyl linkage positions of the glycan moiety as well as the supramolecular organization of the sialoglycoconjugate. Displays preference for alpha- (2->3)-sialylated GD1a and GT1B gangliosides over alpha-(2->8)- sialylated GD1b, in both monomeric forms and micelles. Hydrolyzes monomeric GM1 ganglioside, but has no activity toward the miscellar form (PubMed:14613940). Has lower sialidase activity for glycoproteins such as fetuin and TF/transferrin that carry a mixture of alpha-(2->3) and alpha-(2->6)-sialyl linkages. Cleaves milk oligosaccharide alpha- (2->3)-sialyllactose, but is inactive toward alpha-(2->6)-sialyllactose isomer. Has no activity toward colominic acid, a homomer of alpha- (2->8)-linked Neu5Ac residues (PubMed:14613940).

Cellular Location Cytoplasm, cytosol.

Tissue Location Expressed in skeletal muscle, fetal liver and embryonic carcinoma cell line NT2-D1.

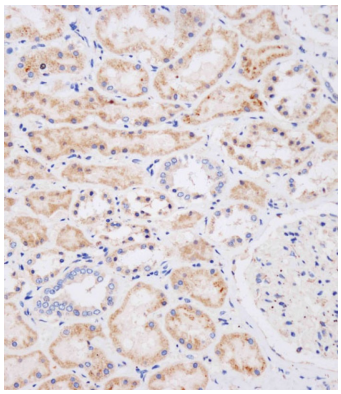
Background

This gene belongs to a family of glycohydrolytic enzymes which remove sialic acid residues from glycoproteins and glycolipids. Expression studies in COS7 cells confirmed that this gene encodes a functional sialidase. Its cytosolic localization was demonstrated by cell fractionation experiments. [provided by RefSeq].

References

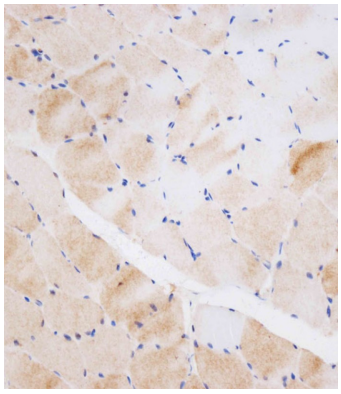
Stoppani, E., et al. Cell Biol. Int. 33(9):1020-1025(2009)
Li, C.Y., et al. Cell Res. 17(4):357-362(2007)
Chavas, L.M., et al. J. Biol. Chem. 280(1):469-475(2005)
Seyrantepe, V., et al. J. Biol. Chem. 279(35):37021-37029(2004)
Tringali, C., et al. J. Biol. Chem. 279(5):3169-3179(2004)

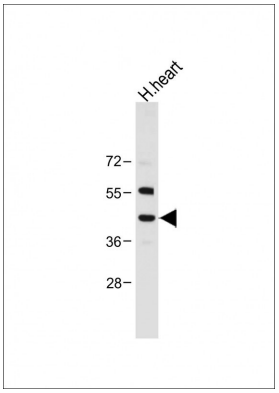
Images



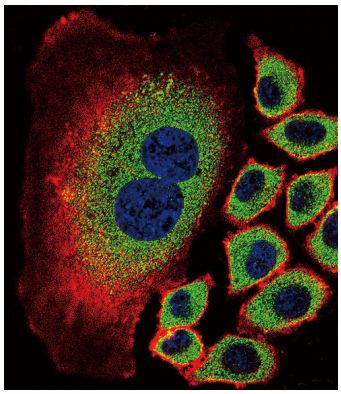
Immunohistochemical analysis of AP12189a on paraffin-embedded human kidney tissue was performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:250) for 15min at room temperature. Leica Bond Polymer Refine Detection was used as the secondary antibody.

Immunohistochemical analysis of AP12189a on paraffin-embedded human skeletal muscle tissue was performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:250) for 15min at room temperature. Leica Bond Polymer Refine Detection was used as the secondary antibody.

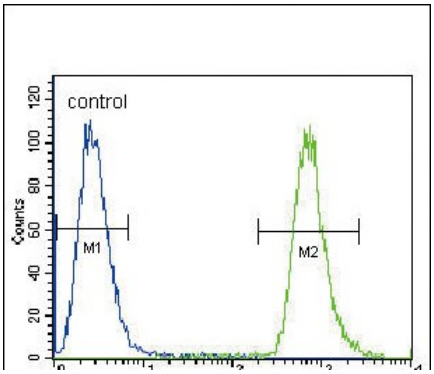




Anti-NEU2 Antibody (N-term) at 1:2000 dilution + Human heart tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 42 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Confocal immunofluorescent analysis of NEU2 Antibody (N-term)(Cat#AP12189a) with A549 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red). DAPI was used to stain the cell nuclear (blue).



NEU2 Antibody (N-term) (Cat. #AP12189a) flow cytometric analysis of A549 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.