OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TA319185

NEU2 Rabbit Polyclonal Antibody

Product data:

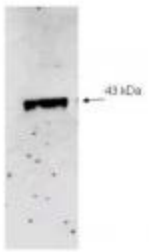
Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	ELISA: 1:10,000 - 1:50,000, WB: 1:500- 1:2,000
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 110-124 of Human Neu2.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	neuraminidase 2 (cytosolic sialidase)
Database Link:	NP_005374 Entrez Gene 4759 Human Q9Y3R4
Synonyms:	SIAL2

View online »

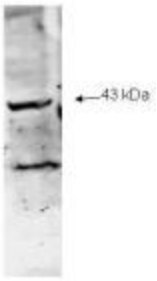
Note: Neuraminidases or sialidases are exoglycosidases that catalyze the cleavage of a-glycosidically linked terminal N-acetyl neuraminic acid from sialylated glycoconjugates. They are widely spread in nature, occurring in viruses, bacteria, fungi, protozoa, birds and mammals. Together, the neuraminidases form a family of hydrolases that share a conserved active site and similar sequence motifs. Three types of neuraminidase are found in mammals and are defined as lysosomal, plasma membrane and cytosolic on the basis of their biochemical properties and subcellular distribution. Lysosomal N-acetyl-a-neuraminidase (NEU1) has significant primary structure characteristics of other mammalian and microbial sialidases with similar substrate specificity. However, unlike other members of this family, lysosomal neuraminidase requires the carboxypeptidase protective protein/cathepsin A (PPCA) for intracellular transport and lysosomal activation. The enzyme is only catalytically active when it is bound to PPCA and is a component of a high molecular weight, multi-protein complex containing PPCA, β-galactosidase and N-acetylgalactosamine-6-sulfate sulfatase. Using a hamster Sial3 probe, Monti et al. (1999) identified the gene encoding sialidase-2, which they designated NEU2, from a human genomic library. The 2 putative exons of NEU2 encode a deduced 380-amino acid protein with a calculated molecular mass of 42.23 kD. The NEU2 protein has significant homology with the mammalian, viral, and bacterial sialidases. It shares over 72% similarity with the hamster and rat cytosolic sialidases and over 42% similarity with human NEU1. NEU2 contains a potential N-linked glycosylation site, 2 aspartic acid block consensus sequences, and an N-terminal F/YRIP sequence motif which is part of the active site of other sialidase enzymes. Monti et al. hypothesized that NEU2 has a cytosolic localization because it does not contain a cleavage site, transmembrane domain, or targeting motifs.

Protein Pathways: Other glycan degradation, Sphingolipid metabolism

Product images:



WB analysis using Immunochemical's Anti-Neu2 antibody to detect recombinant His tagged Neu-2 (1.0 ?g loaded). Molecular weight marker (not shown) indicates a single band of the expected MW (43 kDa). The blot was incubated with a 1:500 dilution of the antibody at RT for 1 h followed by detection using IRDye800 labeled Goat-a-Rabbit IgG [H&L] diluted 1:1,000. IRDye800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR.



WB analysis using Immunochemical's Anti-Neu2 antibody to detect Neu-2 present in a lysate expressing human Neu2. Molecular weight marker (not shown) indicates a band of the expected MW (43 kDa). The reactive lower molecular weight band is believed to represent a truncated form of this protein. The blot was incubated with a 1:500 dilution of the antibody at RT for 1 h followed by detection using IRDye™800 labeled Goat-a-Rabbit IgG [H&L] diluted 1:1,000.