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GNE Antibody
Rabbit mAb
Catalog # AP93000

Specification

GNE Antibody - Product Information

Application	**WB, ICC**
Primary Accession	Q9Y223
Clonality	**Monoclonal**
Other Names	
DMRV; GNE; IBM2; ManAc kinase; Uae1;	
Isotype	**Rabbit IgG**
Host	**Rabbit**
Calculated MW	**79275 Da**

GNE Antibody - Additional Information

Dilution	**WB~~1:1000** **ICC~~N/A**
Purification	**Affinity-chromatography**
Immunogen	**A synthesized peptide derived from human GNE**
Description	**Regulates and initiates biosynthesis of N-acetylneuraminic acid (NeuAc), a precursor of sialic acids. Plays an essential role in early development (By similarity). Required for normal sialylation in hematopoietic cells. Sialylation is implicated in cell adhesion, signal transduction, tumorigenicity and metastatic behavior of malignant cells.**
Storage Condition and Buffer	**Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.**

GNE Antibody - Protein Information

Name GNE (HGNC:23657)

Function
Bifunctional enzyme that possesses both UDP-N- acetylglucosamine 2-epimerase and N-acetylmannosamine kinase activities, and serves as the initiator of the biosynthetic pathway leading to the production of N-acetylneuraminic acid (NeuAc), a critical precursor in the synthesis of sialic acids. By catalyzing this pivotal and rate-limiting step in sialic acid biosynthesis, this enzyme assumes a pivotal role in governing the regulation of cell surface sialylation, playing a role in embryonic angiogenesis (PubMed:<a href="http://www.uniprot.org/citations/10334995"

target="_blank">10334995, PubMed:11326336, PubMed:14707127, PubMed:16503651, PubMed:2808337, PubMed:38237079). Sialic acids represent a category of negatively charged sugars that reside on the surface of cells as terminal components of glycoconjugates and mediate important functions in various cellular processes, including cell adhesion, signal transduction, and cellular recognition (PubMed:10334995, PubMed:14707127).

Cellular Location
Cytoplasm, cytosol {ECO:0000250|UniProtKB:O35826}

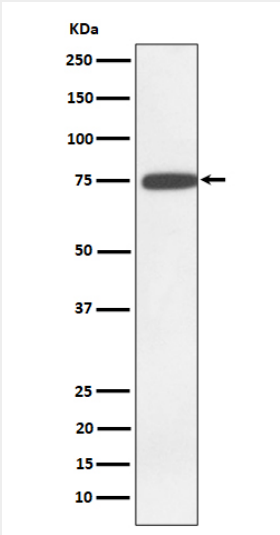
Tissue Location
Highest expression in liver and placenta. Also found in heart, brain, lung, kidney, skeletal muscle and pancreas Isoform 1 is expressed in heart, brain, kidney, liver, placenta, lung, spleen, pancreas, skeletal muscle and colon. Isoform 2 is expressed mainly in placenta, but also in brain, kidney, liver, lung, pancreas and colon. Isoform 3 is expressed at low level in kidney, liver, placenta and colon.

GNE Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GNE Antibody - Images



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Western blot analysis of GNE expression in K562 cell lysate.