

GNE Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP12285a

Specification

GNE Antibody (N-term) - Product Information

Application WB, IHC-P,E Primary Accession Q9Y223

035826, Q91WG8, Other Accession

07T049,

NP 001121699.1, NP 005467.1

Human

Reactivity Predicted Hamster, Mouse,

Rat

Host Rabbit Clonality **Polyclonal** Isotype Rabbit Ig Calculated MW 79275 Antigen Region 169-197

GNE Antibody (N-term) - Additional Information

Gene ID 10020

Other Names

Bifunctional UDP-N-acetylglucosamine 2-epimerase/N-acetylmannosamine kinase, UDP-GlcNAc-2-epimerase/ManAc kinase, UDP-N-acetylglucosamine 2-epimerase (hydrolyzing), UDP-GlcNAc-2-epimerase, Uridine diphosphate-N-acetylglucosamine-2 -epimerase, N-acetylmannosamine kinase, ManAc kinase, GNE, GLCNE

Target/Specificity

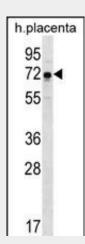
This GNE antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 169-197 amino acids from the N-terminal region of human GNE.

Dilution

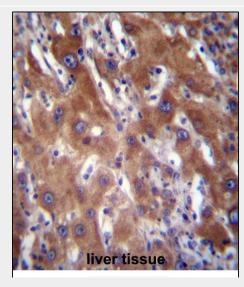
WB~~1:1000 IHC-P~~1:10~50

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.



GNE Antibody (N-term) (Cat. #AP12285a) western blot analysis in human placenta tissue lysates (35ug/lane). This demonstrates the GNE antibody detected the GNE protein (arrow).



GNE Antibody (N-term) (Cat. #AP12285a)immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of GNE Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



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

GNE Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GNE Antibody (N-term) - Protein Information

Name GNE

Synonyms GLCNE

Function

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.

Cellular Location Cytoplasm.

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 (N-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation

GNE Antibody (N-term) - Background

The protein encoded by this gene is a bifunctional enzyme

that initiates and regulates the biosynthesis of N-acetylneuraminic

acid (NeuAc), a precursor of sialic acids. It is a rate-limiting

enzyme in the sialic acid biosynthetic pathway. Sialic acid

modification of cell surface molecules is crucial for their

function in many biologic processes, including cell adhesion and

signal transduction. Differential sialylation of cell surface

molecules is also implicated in the tumorigenicity and metastatic

behavior of malignant cells. Mutations in this gene are associated

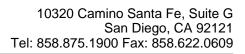
with sialuria, autosomal recessive inclusion body myopathy, and

Nonaka myopathy. Alternative splicing of this gene results in

transcript variants encoding different isoforms. [provided by RefSeq].

GNE Antibody (N-term) - References

Stober, A., et al. Neuromuscul. Disord. 20(5):335-336(2010)
Reinke, S.O., et al. Glycoconj. J. 26(4):415-422(2009)
Tong, Y., et al. PLoS ONE 4 (10), E7165 (2009): Reinke, S.O., et al. FEBS Lett. 581(17):3327-3331(2007)
Watts, G.D., et al. Neuromuscul. Disord. 13 (7-8), 559-567 (2003):





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