

**Anti-GNE Antibody**  
**Rabbit polyclonal antibody to GNE**  
**Catalog # AP61020****Specification**

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**Anti-GNE Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">O9Y223</a>
Other Accession	<a href="#">O91WG8</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	79275

**Anti-GNE Antibody - Additional Information****Gene ID** 10020**Other Names**GLCNE; Bifunctional UDP-N-acetylglucosamine 2-epimerase/N-acetylmannosamine kinase;  
UDP-GlcNAc-2-epimerase/ManAc kinase**Target/Specificity**

Recognizes endogenous levels of GNE protein.

**Dilution**WB~~WB (1/500 - 1/1000), IH (1/50 - 1/100)  
IHC~~1:100~500**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C.Stable for 12 months from date of receipt

**Anti-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</a>, PubMed:<a href="http://www.uniprot.org/citations/11326336"

target="\_blank">11326336</a>, PubMed:<a href="http://www.uniprot.org/citations/14707127" target="\_blank">14707127</a>, PubMed:<a href="http://www.uniprot.org/citations/16503651" target="\_blank">16503651</a>, PubMed:<a href="http://www.uniprot.org/citations/2808337" target="\_blank">2808337</a>, PubMed:<a href="http://www.uniprot.org/citations/38237079" target="\_blank">38237079</a>). 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:<a href="http://www.uniprot.org/citations/10334995" target="\_blank">10334995</a>, PubMed:<a href="http://www.uniprot.org/citations/14707127" target="\_blank">14707127</a>).

### Cellular Location

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

### Tissue Location

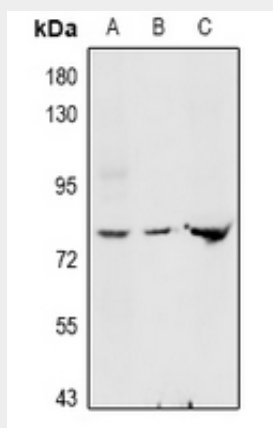
Highest expression in liver and placenta. Also found in heart, brain, lung, kidney, skeletal muscle and pancreas Isoform 1 is expressed in heart, brain, kidney, liver, placenta, lung, spleen, pancreas, skeletal muscle and colon. Isoform 2 is expressed mainly in placenta, but also in brain, kidney, liver,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

### Anti-GNE Antibody - Protocols

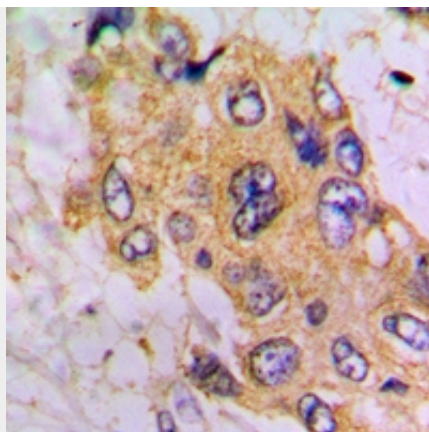
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Anti-GNE Antibody - Images



Western blot analysis of GNE expression in LO2 (A), mouse liver (B), rat liver (C) whole cell lysates.



Immunohistochemical analysis of GNE staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

#### **Anti-GNE Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human GNE. The exact sequence is proprietary.