

GNE Rabbit mAb

Catalog # AP75491

Product Information

Application	WB, IP
Primary Accession	<u>Q9Y223</u>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	79275

Additional Information

Gene ID	10020
Other Names	GNE
Dilution	WB~~1/500-1/1000 IP~~N/A
Format	Liquid

Protein Information

Name	GNE (<u>HGNC:23657</u>)
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: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.





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