Recombinant Human GNE Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. GNE-6082H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	GNE MS Standard C13 and N15-labeled recombinant protein (NP_005467) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	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.
Molecular Mass	79.3 kDa
AA Sequence	MEKNGNNRKLRVCVATCNRADYSKLAPIMFGIKTEPEFFELDVVVLGSHLIDDYGNT YRMIEQDDFDINTRLHTIVRGEDEAAMVESVGLALVKLPDVLNRLKPDIMIVHGDRFD ALALATSAALMNIRILHIEGGEVSGTIDDSIRHAITKLAHYHVCCTRSAEQHLISMCED HDRILLAGCPSYDKLLSAKNKDYMSIIRMWLGDDVKSKDYIVALQHPVTTDIKHSIKM

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	FELTLDALISFNKRTLVLFPNIDAGSKEMVRVMRKKGIEHHPNFRAVKHVPFDQFIQL VAHAGCMIGNSSCGVREVGAFGTPVINLGTRQIGRETGENVLHVRDADTQDKILQAL HLQFGKQYPCSKIYGDGNAVPRILKFLKSIDLQEPLQKKFCFPPVKENISQDIDHILET LSALAVDLGGTNLRVAIVSMKGEIVKKYTQFNPKTYEERINLILQMCVEAAAEAVKLN CRILGVGISTGGRVNPREGIVLHSTKLIQEWNSVDLRTPLSDTLHLPVWVDNDGNCA ALAERKFGQGKGLENFVTLITGTGIGGGIIHQHELIHGSSFCAAELGHLVVSLDGPDC SCGSHGCIEAYASGMALQREAKKLHDEDLLLVEGMSVPKDEAVGALHLIQAAKLGN AKAQSILRTAGTALGLGVVNILHTMNPSLVILSGVLASHYIHIVKDVIRQQALSSVQDV DVVVSDLVDPALLGAASMVLDYTTRRIYTRTRPLEQKLISEEDLAANDILDYKDDDDK V
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 3 months from receipt of products under proper storage and handling conditions.
Storage	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.
Concentration	50 μg/mL as determined by BCA
Storage Buffer	100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name	GNE glucosamine (UDP-N-acetyl)-2-epimerase/N-acetylmannosamine kinase [Homo sapiens (human)]
Official Symbol	GNE
Synonyms	GNE; glucosamine (UDP-N-acetyl)-2-epimerase/N-acetylmannosamine kinase; IBM2, UDP N acetylglucosamine 2 epimerase/N acetylmannosamine kinase; bifunctional

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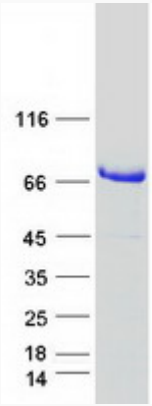
	UDP-N-acetylglucosamine 2-epimerase/N-acetylmannosamine kinase; Uae1; N-acylmannosamine kinase; UDP-GlcNAc-2-epimerase/ManAc kinase; UDP-N-acetylglucosamine 2-epimerase/N-acetylmannosamine kinase; UDP-N-acetylglucosamine-2-epimerase/N-acetylmannosamine kinase; NM; DMRV; IBM2; GLCNE;
Gene ID	10020
mRNA Refseq	NM_005476
Protein Refseq	NP_005467
MIM	603824
UniProt ID	Q9Y223
SDS-PAGE	

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