

KD-Validated Anti-NAGK Mouse Monoclonal Antibody

Mouse monoclonal antibody

Catalog # AGI2175

Product Information

Application	WB, FC
Primary Accession	Q9UJ70
Reactivity	Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Names	24GB14215
Calculated MW	37376
Gene Name	NAGK
Aliases	NAGK; N-Acetylglucosamine Kinase; GNK; N-Acetyl-D-Glucosamine Kinase; N-Acetyl-D-Mannosamine Kinase; Muramyl Dipeptide Kinase; GlcNAc Kinase; EC 2.7.1.59; Epididymis Secretory Sperm Binding Protein; EC 2.7.1.60; EC 2.7.1.-; HSA242910
Immunogen	Recombinant protein of human NAGK

Additional Information

Gene ID	55577
Other Names	N-acetyl-D-glucosamine kinase, N-acetylglucosamine kinase, 2.7.1.59, GlcNAc kinase, Muramyl dipeptide kinase, 2.7.1.-, N-acetyl-D-mannosamine kinase, 2.7.1.60, NAGK {ECO:0000303 PubMed:36002575, ECO:0000312 HGNC:HGNC:17174}

Protein Information

Name	NAGK {ECO:0000303 PubMed:36002575, ECO:0000312 HGNC:HGNC:17174}
Function	Converts endogenous N-acetylglucosamine (GlcNAc), a major component of complex carbohydrates, from lysosomal degradation or nutritional sources into GlcNAc 6-phosphate (PubMed: 22692205). Involved in the N-glycolylneuraminic acid (Neu5Gc) degradation pathway: although human is not able to catalyze formation of Neu5Gc due to the inactive CMAHP enzyme, Neu5Gc is present in food and must be degraded (PubMed: 22692205). Also has N-acetylmannosamine (ManNAc) kinase activity (By similarity). Also involved in innate immunity by promoting detection of bacterial peptidoglycan by NOD2: acts by catalyzing phosphorylation of muramyl dipeptide (MDP), a fragment of bacterial peptidoglycan, to generate 6-O-phospho-muramyl dipeptide, which acts as a direct ligand for NOD2 (PubMed: 36002575).
Tissue Location	Ubiquitous..

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