Human N-Acetyl-D-Glucosamine Kinase/NAGK antibody

Catalog Number: ATGA0232

PRODUCT INFORMATION

Catalog number
ATGA0232

Clone No.
AT4D12

Product type
Monoclonal Antibody

UnitProt No.
Q9UJ70

NCBI Accession No.
NP_060037.2

Alternative Names
N-acetyl-D-glucosamine kinase, GNK, HSA242910, GlcNAc kinase

PRODUCT SPECIFICATION

Antibody Host
Mouse

Reacts With
Human

Concentration
1mg/ml (determined by BCA assay)

Formulation
Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen
Recombinant human NAGK (1-344aa) purified from E. coli

Isotype
IgG1 kappa

Purification Note
By protein-G affinity chromatography

Application
ELISA, WB, ICC/IF

Usage
The antibody has been tested by ELISA, Western blot and ICC/IF analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Storage

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Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

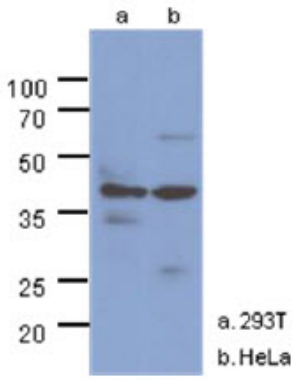
NAGK is a member of the eukaryotic-type N-acetylglucosamine kinase family. NAGK catalyzes the first committed step in arginine biosynthesis in organisms that perform the cyclic pathway of ornithine synthesis. In eukaryotic and bacterial oxygenic phototrophs, the activity of NAGK is controlled by the P (II) signal transduction protein. NAGK converts endogenous N-acetylglucosamine (GlcNAc), a key component of complex carbohydrates, from lysosomal degradation or alimentary sources into GlcNAc 6-phosphate.

General References

Weihofen WA, Berger M, Chen H, et al. (2007). J. Mol. Biol. 364 (3): 388-99.
Weidanz JA, Campbell P, Moore D, et al. (1997). Br. J. Haematol. 95 (4): 645-53.
Hinderlich S., et al. (Jul 2000). Eur J Biochem 267 (11): 3301-8.

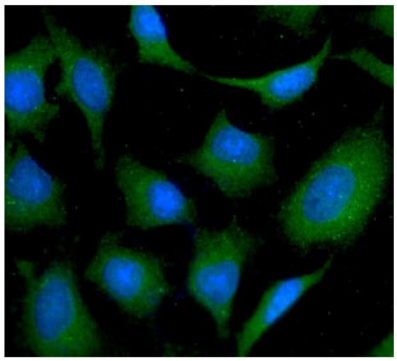
DATA

Western blot analysis (WB)



The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human NAGK antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane a.: 293T cell lysate.
Lane b.: HeLa cell lysate.

Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of NAGK in HeLa cells. The cell was stained with ATGA0232 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).