

Product datasheet for **RC200113**

N acetylglucosamine kinase (NAGK) (NM_017567) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | N acetylglucosamine kinase (NAGK) (NM_017567) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | N acetylglucosamine kinase |
| Synonyms: | GNK; HSA242910 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC200113 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCGCGATCTATGGGGGTGTAGAGGGGGGAGGCACACGATCCGAGGTCCTTTTAGTCTCAGAGGATG
GGAAGATCCTGGCAGAAGCAGATGGACTGAGCACAAACCACTGGCTGATCGGGACAGACAAGTGTGTGGA
GAGGATCAATGAGATGGTGAACAGGGCCAAACGGAAAGCAGGGGTGGATCCTCTGGTACCGCTGCGAAGC
TTGGCCATCTCTGAGCGGTGGGACCAGGAGACCGGGGAGGATCCTGATCGAGGAGCTCAGGGACC
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GTTCCAGGCAAGATTGGACTCCCCATCCTGTGCGTGGGCTCTGTGTGGAAGAGCTGGGAGCTGTGAAG
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TGATGAAGCTGAGGCACTCCTCCGCTCTGGGTGGGCCAGCCTAGGGGCCAGGCACATCGGGCACCTCCT
CCCCATGGACTATAGCGCAATGCCATTGCCTTCTATTCTACACCTTTTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200113 protein sequence
 Red=Cloning site Green=Tags(s)

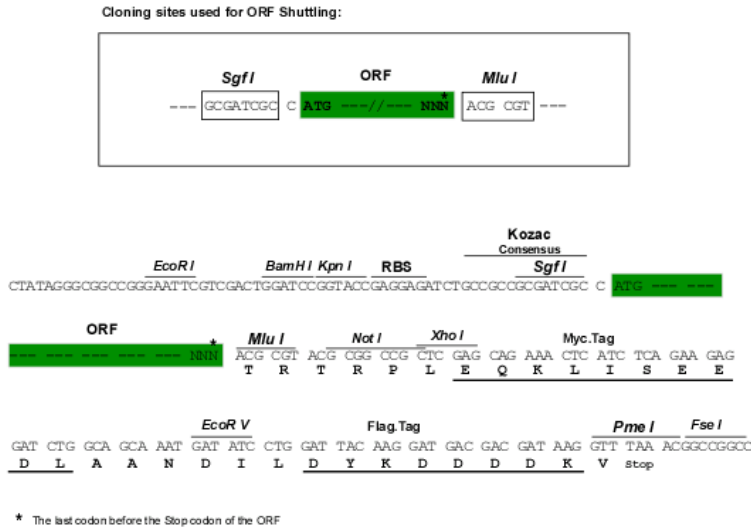
MAAIYGGVEGGGTRSEVLLVSEDGKILAEADGLSTNHWLIGTDKCVERINEMVNRKRKAGVDPLVPLRS
 LGLSLSGGDQEDAGRILIEELRDRFPYLSSEYLITTTDAAGSIATATPDGGVVLISGTGNSNCRILINPDGSE
 SGCGGWGHMMGDEGSAYWIAHQAVKIVFDSIDNLEAAPHDIGYVKQAMFHYFQVPDRLLGILTHLYRDFDK
 CRFAGFCR KIAEQAQQGDPLSRYIFRKAGEMLGRHIVAVLPEIDPVLVFGKIGLPILCVGSVWKS WELLK
 EGFL LAL TQGREIQAQNFSSFTLMKLRHSSALGGASLGARHIGHLLPMDYSANAI AFYSYTF S

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6583_g02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_017567

ORF Size: 1032 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_017567.6](#)

RefSeq Size: 1801 bp

RefSeq ORF: 1035 bp

Locus ID: 55577

UniProt ID: [Q9UJ70](#)

Cytogenetics: 2p13.3

Domains: BcrAD_BadFG

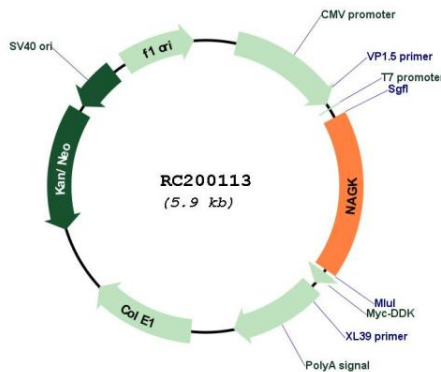
Protein Families: Druggable Genome

Protein Pathways: Amino sugar and nucleotide sugar metabolism

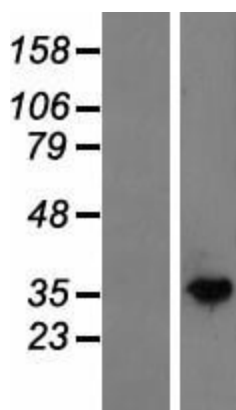
MW: 37.4 kDa

Gene Summary: This gene encodes a member of the N-acetylhexosamine kinase family. The encoded protein catalyzes the conversion of N-acetyl-D-glucosamine to N-acetyl-D-glucosamine 6-phosphate, and is the major mammalian enzyme which recovers amino sugars. [provided by RefSeq, Nov 2011]

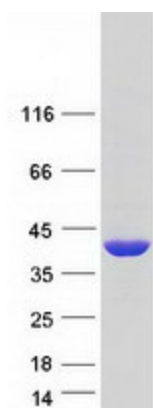
Product images:



Circular map for RC200113



Western blot validation of overexpression lysate (Cat# [LY413709]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200113 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NAGK protein (Cat# [TP300113]). The protein was produced from HEK293T cells transfected with NAGK cDNA clone (Cat# RC200113) using MegaTran 2.0 (Cat# [TT210002]).