

Product datasheet for RC203388

NAT13 (NAA50) (NM_025146) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NAT13 (NAA50) (NM_025146) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NAT13
Synonyms:	hNaa50p; MAK3; NAT5; NAT5P; NAT13; NAT13P; SAN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203388 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGAAAGGTAGCCGATCGAGCTGGGAGATGTGACACCACACAATATTAACAGTTGAAAAGATTGAATC
 AGGTCATCTTTCCAGTCAGCTACAATGACAAGTTCTACAAGGATGTGCTGGAGGTTGGCGAGCTAGCAA
 ACTTGCCTATTTCAATGATATTGCTGTAGGTGCAGTATGCTGTAGGGTGGATCATTCACAGAATCAGAAG
 AGACTTTACATCATGACACTAGGATGTCTGGCACCTTACCGAAGGCTAGGAATAGGAATAAAATGTTAA
 ATCATGTCTTAAACATCTGTGAAAAAGATGGTACTTTTGACAACATTTATCTGCATGTCCAGATCAGCAA
 TGAGTCGGCAATTGACTTCTACAGGAAGTTGGCTTTGAGATTATTGAGACAAAGAAGAACTACTATAAG
 AGGATAGAGCCCGCAGATGCTCATGTGCTGCAGAAAAACCTCAAAGTTCCTTCTGGTCAGAAATGCAGATG
 TGCAAAAGACAGACAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC203388 protein sequence Red=Cloning site Green=Tags(s)
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MKGSRIELGDVTPHNIKQLKRLNQVIFPVSYNDKFYKDVLEVGEAKLAYFNDAVAVCCRDHDSQNQK
 RLYIMTLGCLAPYRRLGIGTKMLNHVLNICEKDGTFDNIYLVHVSISNESAIIDFYRKFGFEIETKKNYYK
 RIEPADAHVLQKNLKVPSGQNADVQKTDN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:	https://cdn.origene.com/chromatograms/mk6428_f05.zip
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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_025146

ORF Size: 507 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_025146.4](#)

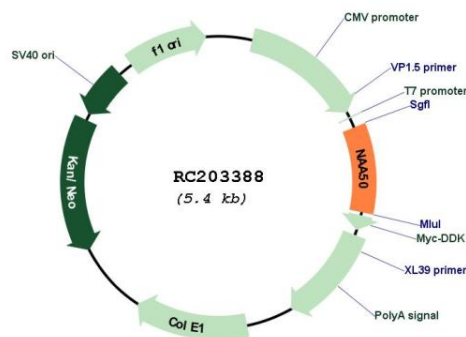
RefSeq Size: 6148 bp

RefSeq ORF: 510 bp

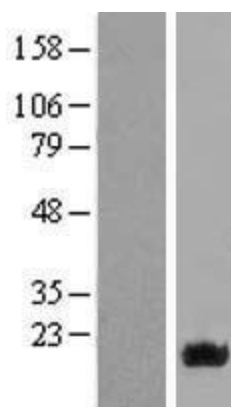
Locus ID: 80218
UniProt ID: [Q9GZZ1](#)
Cytogenetics: 3q13.31
Domains: Acetyltransf
MW: 19.4 kDa

Gene Summary: N-alpha-acetyltransferase that acetylates the N-terminus of proteins that retain their initiating methionine (PubMed:19744929, PubMed:22311970, PubMed:21900231, PubMed:27484799). Has a broad substrate specificity: able to acetylate the initiator methionine of most peptides, except for those with a proline in second position (PubMed:27484799). Also displays N-epsilon-acetyltransferase activity by mediating acetylation of the side chain of specific lysines on proteins (PubMed:19744929). Autoacetylates in vivo (PubMed:19744929). The relevance of N-epsilon-acetyltransferase activity is however unclear: able to acetylate H4 in vitro, but this result has not been confirmed in vivo (PubMed:19744929). Component of a N-alpha-acetyltransferase complex containing NAA10 and NAA15, but NAA50 does not influence the acetyltransferase activity of NAA10: this multiprotein complex probably constitutes the major contributor for N-terminal acetylation at the ribosome exit tunnel, with NAA10 acetylating all amino termini that are devoid of methionine and NAA50 acetylating other peptides (PubMed:16507339, PubMed:27484799). Required for sister chromatid cohesion during mitosis by promoting binding of CDCA5/sororin to cohesin: may act by counteracting the function of NAA10 (PubMed:17502424, PubMed:27422821).[UniProtKB/Swiss-Prot Function]

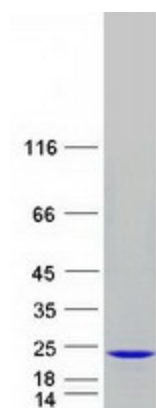
Product images:



Circular map for RC203388



Western blot validation of overexpression lysate (Cat# [LY410864]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203388 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NAA50 protein (Cat# [TP303388]). The protein was produced from HEK293T cells transfected with NAA50 cDNA clone (Cat# RC203388) using MegaTran 2.0 (Cat# [TT210002]).