

Product datasheet for RC201595

MNAT1 (NM_002431) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MNAT1 (NM_002431) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MNAT1
Synonyms:	CAP35; MAT1; RNF66; TFB3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201595 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACGATCAGGGTTGCCCTCGGTGTAAGACCACCAATATCGGAACCCCTCCTGAAGCTGATGGTGA
ATGTGTGCGGACACTCTCTGTGAAAGTTGTGTAGATTTACTGTTTGTGAGAGGAGCTGGAACTGCC
TGAGTGTGGTACTCCACTCAGAAAGAGCAACTCAGGGTACAACCTTTGAAGATCCCACTGTTGACAAG
GAGGTTGAGATCAGGAAAAAGTGCTAAAGATATAACAATAAAAGGAAGAAGATTTTCTAGTCTAAGAG
AATACAATGATTTCTTGAAGAAGTGAAGAAATTGTTTTCAACTTGACCAACAATGTGGATTTGGACAA
CACAAAAAGAAAATGGAGATATACAAAAGGAAAACAAAGATGTTATTCAGAAAAATAAATTAAGCTG
ACTCGAGAACAGGAAGAACTGGAAGAAGCTTTAGAAGTGAACGACAGGAAAATGAACAAAGAAGATTAT
TTATACAAAAAGAAGAACAACCTGCAGCAGATTCTAAAAAGGAAGAATAAGCAGGCTTTTTAGATGAGCT
GGAGAGTTCTGATCTCCCTGTTGCTCTGCTTTTGGCTCAGCATAAAGATAGATCTACCCAATTAGAAATG
CAACTTGAGAAACCAACCTGTAAAACCAAGTACGTTTTCCACAGGCATCAAAATGGGTCAACATATTT
CACTGGCACCTATTCACAAGCTTGAAGAAGCTCTGTATGAATACCAGCCACTGCAGATAGAGACATATGG
ACCACATGTTCTGAGCTTGAGATGCTAGGAAGACTTGGGTATTTAAACCATGTCCAGAGCTGCCTACCA
CAGGACCTTGCTGGAGGCTATACTTCTTCTTCTGCTTGTACAGAGCACTACAGGATGCATTCAAGTGGC
TTTTCTGGCAGCCAGT

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201595 protein sequence
Red=Cloning site Green=Tags(s)

MDDQGPCRCKTTKYRNPSLKLMVNVCGHTLCESCVDLLFVRGAGNCPGCTPLRKSINFRVQLFEDPTVDK
 EVEIRKKVLKIYNKREEDFPSLREYNDLFEEVEEIVFNL TNNVDL DNTKKKMEIYQKENKDVIQKNLKL
 TREQEEL EEALEVERQENEQRRLF IQKEEQ LQQILKRKNKQAF LDELESSDLPVALLLAQHKDRSTQLEM
 QLEKPKVPKPVTFSTGIKMGQHISLAPIHKLEALYEYQPLQIETYGPHVPELEMLGRLGYLNHVRAASP
 QDLAGGYTSSLACHRALQDAFSGLFWQPS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6541_h02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002431

ORF Size: 927 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_002431.4](#)

RefSeq Size: 1397 bp

RefSeq ORF: 930 bp

Locus ID: 4331

UniProt ID: [P51948](#)

Cytogenetics: 14q23.1

Domains: RING

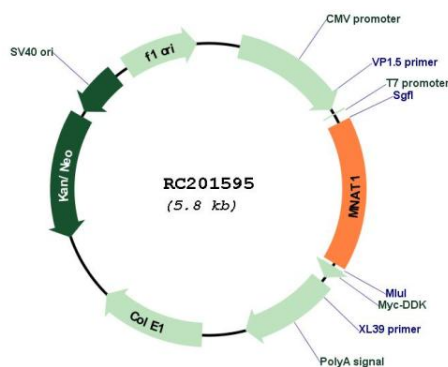
Protein Families: Druggable Genome, Stem cell - Pluripotency, Transcription Factors

Protein Pathways: Nucleotide excision repair

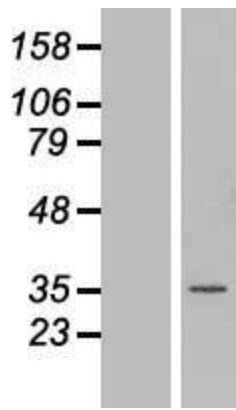
MW: 35.8 kDa

Gene Summary: The protein encoded by this gene, along with cyclin H and CDK7, forms the CDK-activating kinase (CAK) enzymatic complex. This complex activates several cyclin-associated kinases and can also associate with TFIIH to activate transcription by RNA polymerase II. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2011]

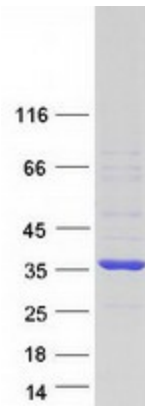
Product images:



Circular map for RC201595



Western blot validation of overexpression lysate (Cat# [LY419334]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201595 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MNAT1 protein (Cat# [TP301595]). The protein was produced from HEK293T cells transfected with MNAT1 cDNA clone (Cat# RC201595) using MegaTran 2.0 (Cat# [TT210002]).