

Product datasheet for **MG227103**

Mnat1 (NM_008612) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Mnat1 (NM_008612) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Mnat1
Synonyms: E130115E11Rik; MAT1; P36
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG227103 representing NM_008612
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACGACCAGGGCTGCCCCAGGTGTAAGACCACCAAGTACCGGAACCCTTCTTTGAAGCTGATGGTGA
ACGTGTGCGGACACACTCTGTGTGAGAGTTGTGTGGACTTACTGTTTGAAGAGGAGCTGGAAACTGTCC
TGAGTGTGGGACTCCACTGAGAAAGAGCAACTCAGGGTACAACCTTTGAAGATCCCACTGTTGATAAG
GAGGTTGAAATTCGAAAAAAGTACTAAAGATATAACAATAAAAGGAAGAAGATTTTCTAGTTTAAAG
AGTATAATGATTTTCTGGAAGAAGTGGAGGAAATCGTTTTCAATTTGACCAACAATGTGGATTTGGAGAA
CACTAAAAAGAAAATGGAAATATATCAAAAAGAAAACAAAGATGTCAATCAGAAAAACAAATTAAGCTG
ACGCGGGAGCAGGAGGATTGGAGGAAGCATTGGAGGTAGAACGCCAAGAACATGAGCAGCGACGGCTGT
TCATACAAAAGGAAGAAGAGCTGCAGCAGGCTCTGAAAAGGAAGAACAAGCAGGCCTTTTATAGTAGCT
GGAGAGCTCCGACCTCCCTGTTGCTCTGCTCCTGGCGCAGCATAAAGACAGATCGACCCAGCTGGAATG
CAGCTCGAGAAGCCAGATCCATGAAGCCAGTGACGTTTTCCACAGGAATTAATGAGGTCACAGATTT
CATTAGCACCAATCCAAAAGCTGGAAGAAGCTCTTATGAGTACCAGCCCTGCAGATAGAGACCTGTGG
CCCACAAGTTCTGAGCAAGAGCTCTTAGGACGGCTTGGGTATTTAAACCACGTCCGGGCTGCATCTCCA
CAGGATCTTGCTGGCGGCTATACTTCTTCTTGTGCTTGTACAGAGCGCTACAGGATGCGTTCAGTGGC
TCTTCTGGCAGCCAGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG227103 representing NM_008612
Red=Cloning site Green=Tags(s)

MDDQGCPKCKTKTKYRNPSTKLMVNVCGHTLCESCVDLLFVRGAGNCECGTPLRKSINFRVQLFEDPTVDK
 EVEIRKKVLKIYNKREEDFPSLREYNDLFEEVEEIVFNLTNNVDLENTKKKMEIQKENKDVIQKNLKL
 TREQEELLEEALVERQEHEQRRLFIQKEEELQQALKRKNKQAFLELESDDLPAVALLLAQHKDRSTQLEM
 QLEKPRSMKPVTFSTGIKMGQQISLAPIQKLEALYEYQPLQIETCGPQVPEQELLGRLGYLNHVRAASP
 QDLAGGYTSSLACHRALQDAFSGLFWQPR

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_008612

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_008612.2](#), [NP_032638.2](#)

RefSeq Size: 2505 bp

RefSeq ORF: 930 bp

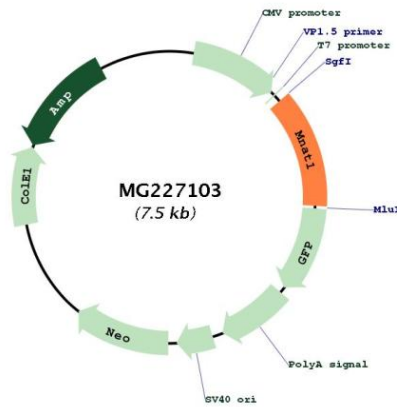
Locus ID: 17420

UniProt ID: [P51949](#)

Cytogenetics: 12 C3

Gene Summary: Stabilizes the cyclin H-CDK7 complex to form a functional CDK-activating kinase (CAK) enzymatic complex. CAK activates the cyclin-associated kinases CDK1, CDK2, CDK4 and CDK6 by threonine phosphorylation. CAK complexed to the core-TFIIF basal transcription factor activates RNA polymerase II by serine phosphorylation of the repetitive C-terminal domain (CTD) of its large subunit (POLR2A), allowing its escape from the promoter and elongation of the transcripts. Involved in cell cycle control and in RNA transcription by RNA polymerase II. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG227103