

Product datasheet for **MR222771**

Atat1 (NM_001142745) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Atat1 (NM_001142745) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Atat1
Synonyms: 0610011P08Rik; 2610008K08Rik; 2610110G12Rik; 3110080J08Rik; Mec17; TAT
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >MR222771 representing NM_001142745
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGAGTTC**CCGTT**CGATGTGGATGCGCTGTTCCCGAGCGGATCACCGTCTGGACCAGCACCTGCGGC
CTCCGGCCCGCCGACCCGAACCAACGCCGGCCGTGGATCTGCAGCAGCAATCATGACTATTGT
AGATGAGCTGGCAAGGCTTCTGCCAAGGCGCAGCACCTCCCTGCACCCATCACCAGCGCTTTGAGGATG
CAAAGCAACCGGCACGTTATTTACATACTGAAGGACACCTCAGCCCGACCGGCAGGGAAAGGAGCCATTA
TTGGTTTCTCAAAGTTGGATACAAGAAGCTCTTTGTA**CTGGATGACCGGAGGCTCACAATGAGGTAGA**
ACCCCTTTGCATTCTGGACTTTTACATCCACGAGTCGGTGAACGGCATGGCCACGGGCGAGA**ACTTTTT**
CAGCATATGTTACAGAAAGAGCGAGTGGAGCCCAACTGGCCATTGACCGACCATCGCCGAAGCTGC
TCAAGTTCTGAATAAGCACTACAACCTGGAGACCACAGTCCACAGGTGAACA**ACTTTGTCATCTTTGA**
AGGCTTCTTTGCCATCAGCACCGGCCCCCACTTCTCTCTGAGAGCAACTCGACTCTCGTGTCTGT
GTGGCCGATCCCATACCTGCTGCTCCAGCACGGAAGCTGCCACCAAAAGAGCAGAGGGAGACATTAAGC
CATACTTCCAGTGACAGAGAATTCCTGAAGGTAGCTGTGGAGCCTCCTTGCCCTGAACAGGGCC**CC**
TCGGCGTGCCACACCTCCAGCCACCCACCTCCAGTTCTAGCAGCCTGGGCAACTCACC**GGATCGGGGT**
CCCTTCCGGCCCTTTGTTCCAGAGCAGGAGCTGCTTCGCTCCCTGCGTCTCTGTCC**CCACACCCTACTG**
CACGCCTTCTGCTGGCCACTGACCTGGAGGCAGCCAGCCAGCGCAGACGCACCAGCTCCCTTCC**CCG**
ATCTGATGAGAGTCGATAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR222771 representing NM_001142745
 Red=Cloning site Green=Tags(s)

MEFFPFDVDALFPERITVLDQHLRPPARRPGTTTPARVDLQQQIMTIVDELGKASAKAQHLPAPITSALRM
 QSNRHVIYILKDT SARPAGKGAIGFLKVGKFLVLDREAHNEVEPLCILDYI HESVQRHGHGREL F
 QHMLQKERVEPHQLAIDRPSKLLKFLNKHYNLETTVPQVNNFVIFEGFFAHQHRPPTSSLRATRHSRAA
 VADPIPAAPARKLPPKRAEGDIKPYSSSDREFLKVAVEPPWPLNRAPRRATPPAHPPRSSLGNSPDRG
 PLRPFVPEQELLRSLRLCPPHPTARLLLATDPGGSPAQRRTSSLPRSDESRY

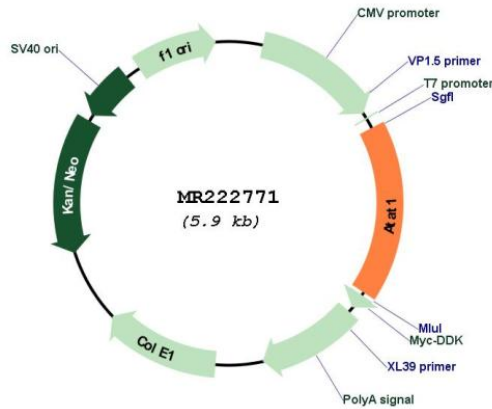
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001142745

ORF Size: 999 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:	<ol style="list-style-type: none">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_001142745.1 , NP_001136217.1
RefSeq Size:	2068 bp
RefSeq ORF:	1002 bp
Locus ID:	73242
UniProt ID:	Q8K341
Cytogenetics:	17 B1
MW:	38 kDa
Gene Summary:	Specifically acetylates 'Lys-40' in alpha-tubulin on the luminal side of microtubules. Promotes microtubule destabilization and accelerates microtubule dynamics; this activity may be independent of acetylation activity. Acetylates alpha-tubulin with a slow enzymatic rate, due to a catalytic site that is not optimized for acetyl transfer. Enters the microtubule through each end and diffuses quickly throughout the lumen of microtubules. Acetylates only long/old microtubules because of its slow acetylation rate since it does not have time to act on dynamically unstable microtubules before the enzyme is released. Required for normal sperm flagellar function. Promotes directional cell locomotion and chemotaxis, through AP2A2-dependent acetylation of alpha-tubulin at clathrin-coated pits that are concentrated at the leading edge of migrating cells. May facilitate primary cilium assembly.[UniProtKB/Swiss-Prot Function]