

Product datasheet for RR214327

Atat1 (NM_212498) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
 Product Name: Atat1 (NM_212498) Rat Tagged ORF Clone
 Tag: Myc-DDK
 Symbol: Atat1
 Synonyms: 3110080J08Rik; Mec17; RGD1303066; TAT
 Vector: pCMV6-Entry (PS100001)
 E. coli Selection: Kanamycin (25 ug/mL)
 Cell Selection: Neomycin
 ORF Nucleotide Sequence: >RR214327 representing NM_212498
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGTTCGATGTGGATGCGCTGTTCCGGAGCGGATCACCGTCTGGACCAGCACCTGCGGC
 CTCGGCCCGCCGACCCGGAACCAACGCCGGCCGTGGATCTGCAGCAGCAATCATGACTATTGT
 AGATGAGCTGGCAAGGCTTCTGCAAGGCTCAGCACCTCCCTGCACCCATCACCAGCGCTTTGAGGATG
 CAGAGCAACCGACACGTTATTTATGTAATAAGGACACCTCAGCCCGCCCGCAGGAAAGGAGCCATTA
 TTGGTTTCTCAAAGTTGGATACAAGAAGCTCTTTGTAAGTGGATGACCGTGGAGGCTCACAATGAGGTAGA
 ACCCTTTGCACTTCTGGACTTTTACATCCACGAGTCAGTGCAACGGCACGGCCATGGGAGAGAACTTTTC
 CAGTATATGTTACAGAAAGAGCGAGTGGAAACACCAACTTGCCATTGACCGACCATCACCGAACTGC
 TCAAGTTCTGAACAAGCACTACAACCTGGAGACCACAGTCCCACAGGTGAACAACCTCGTGATCTTCGA
 AGGCTTCTTGCCATCAACACCGGTCCCCACTCCCTCTCTGAGGGCAACTCGACTCTCGTGCTGCT
 GTGGTCGATCCTATACCGCTGCTCCGGCAAGGAAGCTGCCACCGAAAAGAGCAGAGGGAGACATTAAGC
 CATACTCCTCCAGTGACAGAGAATTCGAAGGTGGCTGTGGAGCCTCCCTGGCCCTGAACAGGGCCCC
 CCGGCGTGCCACACTCCAGCACACCCACTCCAGTTCTAGCAGCCTGGGCAACTCGCCGGATCGGGGT
 CCCCTTCGGCCCTTCGTGCCAGAGCAGGAGCTGCTTCGATCCCTGCGTCTCTGTCCCCACACCCCACTG
 CACGCCTTCTGCTGGCCACTGACCTGGAGGCAGCCAGCCAGCGCAGACGCACCGAGGAGACTCCCTG
 GGGGCTGGTAGCCAAAGCTGCCACTACAGCCGCATGGGGGATTCAATACCTCATTCTGGGTACAGGC
 AACCAAGAACGGAAGCAGGGGGAACAGGAAGCAGAGGATAGGTCGGCCAGTGAGGATCAGGTCTTGTAC
 AGGATGGGTCTGGGGAGGAACCTACGCATACAGTTGCTCAAGGGCCAGGCTCCACCGGCCAGTCTCTG
 GATGGTGGGTGGGACATACTGAACGCCAGGGTATTTCGAAACCTGCAGGAACGCCCAACACCGAGCCT
 TGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RR214327 representing NM_212498
 Red=Cloning site Green=Tags(s)

MEFFPFDVDALFPERITVLDQHLRPPARRPGTTTPARVDLQQQIMTIVDELGKASAKAQHLPAPITSALRM
 QSNRHVIYVLKDT SARPAGKGA IIGFLKVGKYLFLVDDREAHNEVEPLCILDYI HESVQRHGHGRELF
 QYMLQKERVEPHQLAIDRPSKLLKFLNKHYNLETTVPQVNNFVIFEGFFAHQHRSP TPSLRATRHSRAA
 VVDPIPAAPARKLPPKRAEGDIKPYSSSDREFLKVAVEPPWPLNRAPRRATPPAHPPRSSLGNSPDRG
 PLRPFVPEQELLRSLRLCPPHPTARLLLATDPGGSPAQRRTRETPWGLVAQSCHYSRHGGFNTSFLGTG
 NQERKQGEQEAEDRSASEDQVLLQDGSGEETHTVAPRAQAPPAQSWMVG DILNARVIRNLQERRNTRP
 W

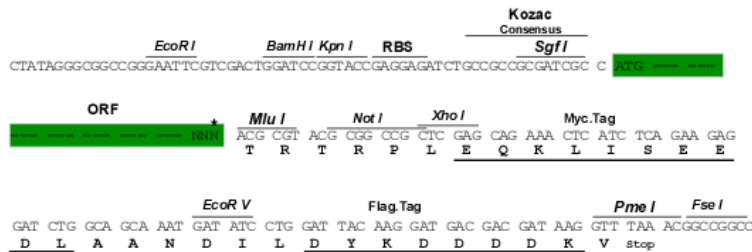
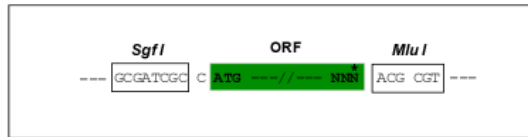
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

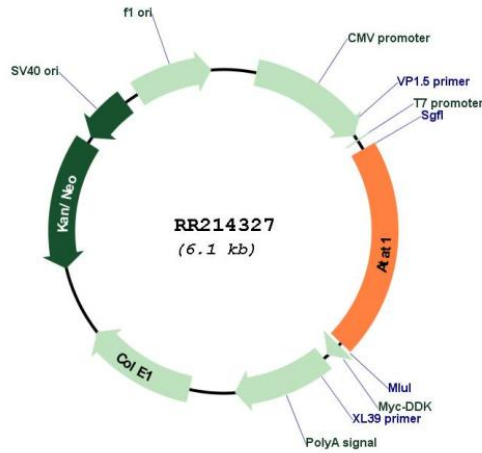
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:

NM_212498

ORF Size:	1263 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_212498.1 , NP_997663.1
RefSeq Size:	1424 bp
RefSeq ORF:	1266 bp
Locus ID:	361789
UniProt ID:	Q6MG11
Cytogenetics:	20p12
MW:	47.3 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]