

Product datasheet for MC211392

Atat1 (NM_028476) Mouse Untagged Clone

Product data:

OriGene Technologies, Inc.

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Product Type:	Expression Plasmids
Product Name:	Atat1 (NM_028476) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Atat1
Synonyms:	0610011P08Rik; 2610008K08Rik; 2610110G12Rik; 3110080J08Rik; Mec17; TAT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC211392 representing NM_028476 Red=Cloning site Blue=ORF Orange=Stop codon
	TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCC <mark>GCGATCGC</mark> C
	ATGGAGTTCCCGTTCGATGTGGATGCGCTGTTCCCGGAGCGGATCACCGTGCTGGACCAGCACCTGCGGC CTCCGGCCCGCCGACCCGGAACCACAACGCCGGCCGTGTGGATCTGCAGCAGCAAATCATGACTATTGT AGATGAGCTGGGCAAGGCTTCTGCCAAGGCGCAGCACCTCCCTGCACCCATCACCAGCGCTTTGAGGATG CAAAGCAACCGGCACGTTATTTACATACTGAAGGACACCTCAGCCCGACCGGCAGGGAAAGGAGCCATTA TTGGTTTCCTCAAAGTTGGATACAAGAAGCTCTTTGTACTGGATGACCGGGAGGCTCACAATGAGGTAGA ACCCCTTTGCATTCTGGACTTTTACATACACGAGTCGGTGCAACGGCATGGCCACGGGCGAGAACTTTTT CAGCATATGTTACAGAAAGAGCGAGTGGAGCCCCACCAACTGGCCACGGGCGAGAACTTTTT CAGCATATGTTACAGAAAGAGCGAGTGGAGCCCCACCAACTGGCCACGGCCACGGCGAAGACTTTTT CAGCATATGTTACAGAAAGAGCGAGTGGAGCCCCACCAACTGGCCACCAGGTGAACAACTTTGTCATCTTTGA AGGCTTCTTTGCCCATCAGCACCTCCAGGCAGGAGCTGCCACCAAGGTGAACAACTTTGTCATCTTTGA AGGCTTCTTTCCAGTGACAGAGAATTCCTGAAGGTAGCTGTGGAGCCTCCTTGGCCCCTGAACAGGGCC CTCGGCGTGCCACACCTCCAGCCACCCCCCACGTTCTAGCAGCCTGGGCAACTCACCGGATCGGGG TCCCCTTCGGCCCTTCGACCAGGCAGCAGGAGCTGCTTCGGCCCTGGGCAACTCACCGGATCGGGG TCCCCTTCGGCCCTTTGTTCCAGAGCAGGAGCTGCTTCGCTCCCTGGGCAACCAAC
Restriction Sites:	Sgfl-Mlul
ACCN:	NM_028476



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ORIGENE Atat1 (NM_028476) Mouse Untagged Clone – MC211392	
Insert Size:	933 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	 Centrifuge at 5,000xg for 5min. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. Close the tube and incubate for 10 minutes at room temperature. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 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:	<u>NM 028476.4, NP 082752.3</u>
RefSeq Size:	1999 bp
RefSeq ORF:	933 bp
Locus ID:	73242
UniProt ID:	<u>Q8K341</u>
Cytogenetics:	17 B1
Gene Summary:	Specifically acetylates 'Lys-40' in alpha-tubulin on the lumenal 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]

Transcript Variant: This variant (3) lacks an internal in-frame coding exon and a few of 3' exons but has an alternate 3' exon, as compared to variant 1. The resulting isoform (3) lacks an internal segment and has a shorter and different C-terminus, as compared to isoform 1. It should be noted that this variant contains an overlapping upstream ORF that may interfere with the translation of the annotated CDS.

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