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Product datasheet for MG211466

Atp1a1 (NM_144900) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atp1a1 (NM_144900) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Atp1a1
Synonyms:	Atpa-1; BC010319
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG211466 representing NM_144900
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGAAGGGGGTTGGACGAGACAAGTATGAGCCTGCCGCTGTATCGGAGCATGGTGACAAAAAGGGCA
AAAAGGCCAAGAAGGAAAGGGATATGGATGAGCTCAAGAAGGAAGTGTCTATGGACGACCATAAACTCAG
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CCGAAGTGCTACAGAAGAGGAACCGCCAAACGATGATCTGTACCTCGGGGTGGTGCTCTCTGCTGTAGTC
ATCATAACTGGCTGTTTCTCCTATTATCAAGAAGCAAAAAGCTCCAAGATCATGGAATCCTTCAAGAACA
TGGTCCCTCAGCAAGCCCTTGTGATTCGAAATGGAGAGAAAATGAGCATCAATGCGGAGGATGTCGTCGT
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TGCAAGGTGGATAACTCCTCACTCACTGGTGAATCAGAACCCCAGACTCGGTCCCCGGATTTCACAAACG
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TCCATTCACAAGAACCCAAATGCATCTGAGCCCAAACACCTGCTAGTGATGAAGGGCGCCCCAGAAAGGA
TCCTGGACCGCTGCAGCTCCATCCTTCTCCACGGCAAGGAGCAGCCACTGGATGAAGAGCTGAAGGACGC
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TATCCCCTCAAACCTACATGGTGGTTCTGTGCCTTCCCCTACTCCCTTCTCATCTTTGTGTATGACGAGG
TGCGGAAGCTCATTATCAGGCGGCGCCCTGGCGGCTGGGTGGAGAAGGAAACCTACTAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG211466 representing NM_144900
Red=Cloning site Green=Tags(s)

MGKGVGRDKYEPAAVSEHGDKKGKKAKKERDMDELKKEVSMDDHKLSLDELHRKYGTDLSRGLTPARAAE
ILARDGPNALTPPPTTPEWVKFCRQLFGGFSMLLWIGAILCFLAYGIRSATEEEPPNDDLYLGVVLSAVV
IITGCFSYYQEAKSSKIMESFKNMVPQQALVIRNGEKMSINAEDVVVGDLVEVKGGDRIPADLRIISANG
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QTPIAEEIEHFIHLITGVAVFLGVSFFILSLILEYTWLEAVIFLIGIIVANVPEGLLATVTVCLTLTAKR
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SIHKNPNASEPKHLLVMKGAPERILDRCSSILLHGKEQPLDEELKDAFQNAYLELGGLGERVLGFCHLLL
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IVEGCQRQGAIVAVTGDGVNDSPALKKADIGVAMGIVGSDVSKQAADMILLDDNFASIVTGVEEGRLIFD
NLKKSIAYTLTSNIPEITPFLIFIIANIPLPLGTVTILCIDLGTDMVPAISLAYEQAESDIMKRQPRNPK
TDKLVNERLISMAYGQIGMIQALGGFFTYFVILAENGFLPFHLLGIRETWDDRWVNDVEDSYGQQWTYEQ
RKIVEFTCHTAFFVSIVVVQWADLVICKTRRNSVFQQGMKNKILIFGLFEETALAAFLSYCPGMGAALRM
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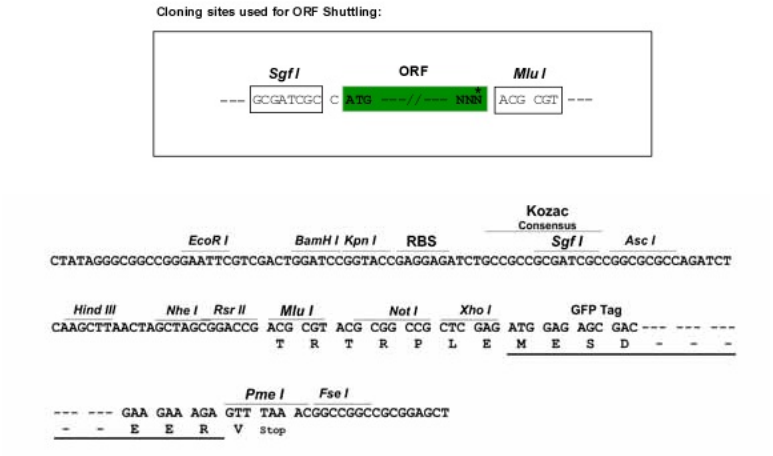
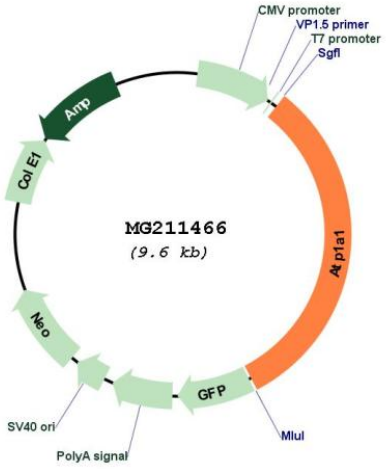
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_144900

ORF Size: 3069 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_144900.2
RefSeq Size:	3686 bp
RefSeq ORF:	3072 bp
Locus ID:	11928
UniProt ID:	Q8VDN2
Cytogenetics:	3 44.3 cM
Gene Summary:	This is the catalytic component of the active enzyme, which catalyzes the hydrolysis of ATP coupled with the exchange of sodium and potassium ions across the plasma membrane. This action creates the electrochemical gradient of sodium and potassium ions, providing the energy for active transport of various nutrients.[UniProtKB/Swiss-Prot Function]