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Product datasheet for MC223998

Atp2b1 (NM_026482) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atp2b1 (NM_026482) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Atp2b1
Synonyms:	2810442I22Rik; E130111D10Rik; Pmca1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

Fully Sequenced ORF:

>MC223998 representing NM_026482
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCGACATGGCCAACAACTCAGTTGCGTATAGCGGTGTGAAGAACTCTTTGAAAGAAGCTAACCATG
ATGGAGACTTTGGAATTACGCTTACAGAGCTGCGAGCTCTCATGGAGCTCAGATCCACGGATGCATTACG
GAAAATACAGGAGAGCTATGGAGATGTCTATGGCATTTGCACCAAGTTGAAAACATCTCCCAATGAAGGT
TTAAGTGGAAATCCTGCAGATTTAGAAAGAAGAGAAGCAGTGTTTGGAAAGAACTTTATACCTCCTAAGA
AGCCAAAAACCTTTCTTCAGTTAGTCTGGGAAGCATTACAAGATGTCACTTTAATTATACTAGAAATTGC
AGCCATAGTATCATTGGGCCTTTCTTTTTATCAACCTCCGGAAGGGGATAATGCACTTTGTGGAGAAGTT
TCTGTTGGGGAAGAAGAAGGTGAAGGAGAAACGGGGTGGATTGAAGGAGCTGCGATCCTCTTGTCGGTGG
TGTGTGTGGTGTTGGTGACGGCTTTCAACGACTGGAGCAAGGAGAAGCAGTTCCGAGGCCTGCAGAGTCG
AATTGAGCAGGAACAGAAGTTCACCGTCATCAGGGGTGGGCAGGTCATCCAGATACCTGTAGCTGACATT
ACTGTTGGAGACATTGCCCAAGTGAAGTACGGTGACCTTCTTCCAGCTGATGGCATACTGATTCAAGGCA
ATGACCTGAAGATTGATGAGAGCTCATTGACTGGTGAATCTGATCATGTTAAGAAGTCTCTAGATAAGGA
TCCCTTACTTCTTTCAGGTACTCATGTGATGGAAGGTTCTGGAAGAATGGTGGTCACTGCTGTAGGTGTG
AATTCTCAAACAGGAATCATCTTCACCTTACTTGGAGCTGGGGGTGAAGAAGAGGAAAAGAAAGATGAGA
AGAAGAAGGAAAAGAAAAATAAGAAACAAGATGGAGCTATTGAGAATCGCAACAAAGCAAAAGCCCAGGA
CGGCGCGGCCATGGAGATGCAACCTCTGAAGAGTGAAGAAGGAGGGGACGGTGATGAGAAAGACAAGAAG
AAAGCAAATCTGCCAAAAAAGGAAAAATCCGTGTTACAGGGGAAACTCACAAAGCTGGCTGTTCAGATTG
GCAAAGCAGGTCTGCTGATGTCTGCCATCACAGTTATCATCCTAGTGTTGTATTTTGTGATCGATACCTT
CTGGGTTCAGAAAAGACCATGGCTTGCAGAGTGCACACCGATCTACATCCAGTACTTCGTGAAGTTCTTC
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CTTACTCAGTCAAGAAAATGATGAAGGATAATAACTTAGTGAGACATCTGGATGCTTGTGAGACCATGGG
GAATGCTACAGCTATCTGTTCAGATAAAACAGGAACCCTGACGATGAACAGGATGACGGTTGTTCAAGCT
TACATAAATGAAAAGCATTATAAAAAGGTTCCGGAACCAGAAGCCATCCCACCAAATATCCTGTCCTACC

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TGGTAACGGGGATTTCTGTGAATTGTGCTTATACGTCAAAAATATTGCCACCGGAGAAAGAGGGTGGATT
ACCCCGCCATGTGGGTAACAAAACAGAGTGTGCCTTGTTGGGGTTTCTCTTGGATTTAAAACGGGATTAT
CAAGATGTTAGAAATGAAATACCAGAGGAAGCACTGTACAAAGTCTATACCTTCAATTCTGTTAGGAAGT
CCATGAGCACAGTCCTGAAAAACTCAGATGGAAGTTTCCGCATCTTTAGCAAGGGTGCCTCCGAGATCAT
TCTGAAAAAGTGTTTCAAAATCCTGAGTGCTAATGGCGAGGCAAAAGTATTCCGACCCAGAGACCGCGAT
GACATTGTGAAAACTGTGATCGAGCCCATGGCATCAGAAGGCCTGAGGACCATATGCCTAGCGTTCAGAG
ACTTCCCAGCGGGGGAGCCAGAACCAGAGTGGGATAATGAGAATGATGTCGTCACCGGCCTTACGTGTAT
CGCGGTTGTGGGGATTGAAGATCCTGTGAGGCCTGAGGTACCAGAGGCAATAAAGAAATGTCAGAGGGCT
GGAATTACTGTGCGCATGGTCACTGGTGATAATATTAACACTGCTCGGGCCATTGCTACCAAATGTGGTA
TTTTACACCCAGGGGAAGATTTCCTATGCTTAGAAGGTAAAGATTTTAACCGAAGAATACGAAATGAAAA
AGGAGAGATTGAACAAGAAAGGATAGACAAGATTTGGCCAAAGCTTCGAGTACTTGCAAGATCATCTCCC
ACTGACAAACATACACTGGTGAAAGGTATAATTGACAGCACAGTCTCAGAGCAACGACAGGTTGTAGCTG
TAACGGGTGATGGTACAAATGACGGGCCTGCACTGAAGAAAGCAGACGTTGGCTTTGCAATGGGCATTGC
TGGAACTGATGTGGCTAAAGAAGCGTCTGATATTATTCTCACAGATGACAACTTTACAAGCATTGTCAAA
GCAGTTATGTGGGGACGAAATGTCTATGACAGCATCTCAAAATTCCTTCAGTTCCAGCTTACTGTTAATG
TAGTAGCAGTGATTGTTGCTTTCACGGGCGCTTGTATTACTCAAGACTCGCCACTTAAGGCGGTGCAGAT
GCTCTGGGTAAACCTCATCATGGACACGCTGGCTTCCCTGGCTCTGGCTACGGAACCACCCACCGAGTCA
CTCCTGCTTCGGAAGCCTTATGGTAGAAATAAGCCTCTCATCTCACGCACGATGATGAAGAACATCTTGG
GCCATGCATTCTATCAGCTCGTAGTGGTCTTTACACTCTTATTTGCTGGAGAAAAGTTTTTTGATATCGA
CAGCGGGAGGAATGCGCCTCTGCACGCTCCCCCGTCAGAACATTACACCATCGTGTTCAATACCTTTGTG
CTGATGCAGCTCTTCAATGAAATAAACGCCCGGAAAATTCACGGGGAAAGAAATGTGTTTGAAGGAATCT
TCAATAACGCCATCTTCTGCACCATTGTCCTGGGCACCTTTGTGGTGCAGATAATAATTGTGCAGTTTGG
CGGGAAGCCTTTCAGCTGCTCAGAACTTTCAATAGAGCAATGGCTGTGGTCGATATTCCTGGGAATGGGG
ACCTTACTCTGGGGCCAGCTTATTTCAACCATTCCAACCAGCCGCTTAAAGTTTCTAAAAGAAGCTGGTC
ATGGAACCCAGAAGGAGGAGATACCTGAGGAGGAATTAGCAGAGGATGTTGAAGAGATTGACCATGCCGA
AAGGGAGTTGCGGCGTGGCCAGATCTTGTGGTTTAGAGGCCTGAACAGAATCCAAACACAGATCCGAGTG
GTGAATGCATTTCGTAGTTCTTTATACGAAGGGTTAGAGAAGCCAGAATCAAGAAGTTCAATCCACAACT
TTATGACACACCCTGAGTTTAGGATAGAAGATTCAGAGCCGCACATCCCCCTTATTGATGACACTGATGC
TGAAGACGACGCCCCAACAAAACGCAACTCCAGCCCTCCGCCCTCTCCTAACAAAAATAACAATGCTGTT
GACAGCGGAATTCACCTTACAATAGAAATGAACAAGTCTGCTACCTCTTCATCCCCAGGAAGCCCACTAC
ATAGTTTGGAAACATCACTCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_026482

Insert Size: 3663 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:	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_026482.2, NP_080758.1
RefSeq Size:	7130 bp
RefSeq ORF:	3663 bp
Locus ID:	67972
UniProt ID:	G5E829
Cytogenetics:	10 C3
Gene Summary:	Catalyzes the hydrolysis of ATP coupled with the transport of calcium from the cytoplasm to the extracellular space thereby maintaining intracellular calcium homeostasis (PubMed:22311909, PubMed:16956963, PubMed:28827723, PubMed:26392310, PubMed:29950683, PubMed:24805951, PubMed:23266958). Plays a role in blood pressure regulation through regulation of intracellular calcium concentration and nitric oxide production leading to regulation of vascular smooth muscle cells vasoconstriction (PubMed:24805951, PubMed:29950683, PubMed:22311909). Positively regulates bone mineralization through absorption of calcium from the intestine (PubMed:23266958, PubMed:26392310). Plays dual roles in osteoclast differentiation and survival by regulating RANKL-induced calcium oscillations in preosteoclasts and mediating calcium extrusion in mature osteoclasts (PubMed:23266958). Regulates insulin sensitivity through calcium/calmodulin signaling pathway by regulating AKT1 activation and NOS3 activation in endothelial cells (By similarity).[UniProtKB/Swiss-Prot Function]