

Product datasheet for RC213835

ATP2B4 (NM_001684) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP2B4 (NM_001684) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATP2B4
Synonyms:	ATP2B2; MXRA1; PMCA4; PMCA4b; PMCA4x
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC213835 representing NM_001684 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACGAACCCATCAGACCGTGTCTTGCCTGCCAACTCGATGGCCGAGAGCCGTGAAGGGGACTTTGGCT
GCACAGTAATGGAAGTGAAGGAGCTCATGGAGCTGCGTTCGAGGGATGCACTGACCCAGATTAATGTCCA
CTATGGAGGTGTACAGAATCTCTGCAGTAGACTGAAAACCTCCCTGTGGAAGGTCTGTCTGGAAACCT
GCAGATCTGGAGAAACGTAGGCAGGTGTTGGACACAACGTGATCCCCCAGAAAGCCCAAGACTTTCT
TAGAATTAGTGTGGGAAGCTCTCAAGATGTCACGCTCATCATCTGGAGATTGCAGCCATCATCTCCCT
GGTCTGTCTTTTATCGCCCTGCTGGTGAAGAAAATGAACTGTGTGGTCAAGTCGCAACTACCCAGAA
GATGAAAATGAGGCACAAGCTGGCTGGATTGAGGGGCGAGCCATCCTTTTCTCAGTGATCATCGTGGTGT
TAGTGACTGCCTTTAATGATTGGAGCAAAGAGAAGCAATCCGGGGGCTGCAAGTCCGCAATTGAACAGGA
GCAAAAGTTCTCCATCATCCGAAACGGTCAACTCATCCAGCTCCCTGTGGCTGAGATTGTGGTTGGTGT
ATTGCCAAGTCAAAACGGTGTCTGCTGCCTGCAGATGGAATCCTGATCCAAGGAAATGATCTGAAGA
TTGATGAGAGCTCTGACAGGGGAATCTGACCATGTCAAGAAGTCCCTGGACAAAGACCCCATGTTGCT
CTCAGGGACCCATGTCATGGAAGTCTGGCCGGATGGTGGTACAGCTGTTGGTGTCAACTCTCAGACT
GGAATCATCTTACTCTTGGGGTCAATGAGGATGACGAAGGGGAGAAAAAGAAGAAAGTAAAAAAC
AAGGAGTCCCTGAAAATCGCAACAAGCAAGACCAAGACGGAGTGGCCCTGGAATCCAGCCACTCAA
CAGCCAGGAGGGAATCGACAATGAGGAAAAGGACAAGAAGGCAGTCAAGTGCCTAAAAAGGAGAAGTCA
GTGCTGCAGGGCAAGCTGACTCGCTGGCTGTTGAGATTGGGAAAGCCGGTCTGCTCATGTCTGCTCTCA
CGGTTTTATCTGATTCTATACTTTGTGATTGACAACCTTTGTGATAAATCGCAGACCATGGCTCCCTGA
GTGACTCCCATCTACATCCAGTACTTTGTCAAGTTCTTCATCATCGGCATCACTGTACTGGTGGTGGCT
GTGCCAGAGGGGCTGCCTCTGGCTGTACCATCTCACTGGCTACTCTGTGAAGAAAATGATGAAAGACA
ATAACCTAGTACGGCACTTGGATGCTTGTGAGACCATGGGCAACGCCACCGCCATCTGCTCTGATAAGAC
AGGCACGTTGACCATGAACCGCATGACTGTGGTACAAGCTTATATTGGGGCATCCATTACCGTCAAATC



CCAAGCCCTGATGTCTTCTGCCAAAGTCTGGACCTCATTGTCAATGGCATTCTATCAACAGTGCTT
ATACCTCCAAGATTCTGCCTCCAGAGAAGGAGGGAGGCCTGCCTCGGCAGGTGGGCAACAAGACCGAGTG
TGCTCTGTAGGCTTTGTACAGATCTGAAGCAGGATTATCAGGCTGTGCGTAATGAAGTGCCCGAGGAG
AAGCTCTACAAGGTGTACACCTTAACTCAGTGCAGCAAGTCAATGAGCACCGTCATCAGGAATCCCAACG
GTGGCTCCGTATGTACAGCAAGGGCGCCTCTGAGATCATCTTGCAGCAAGTGAATCGAATCCTGGACCG
GAAAGGGGAAGCAGTGCCATTCAAGAATAAAGACAGAGATGATATGGTACGCACTGTATCGAGCCCATG
GCCTGTGATGGACTCCGGACTATCTGCATAGCTTACCGGGACTTCGATGACACAGAGCCCTCTTGGGACA
ATGAGAATGAGATCCTCACCGAACTGACCTGTATCGCGGTGGTGGGCATTGAGGACCCTGTGCGCCAGA
GGTGCCAGATGCTATTGCCAAATGCAAACAAGCTGGCATTACTGTGAGAATGGTACAGGTGACAACATC
AACACAGCCCGGGCCATTGCCACCAATGTGGCATTCTGACACCTGGGGATGACTTCTGTGCTTAGAAG
GCAAAGAATCAACCGGCTCATCCGCAACGAGAAAGGCGAGGTAGAGCAAGAAAAGCTGGACAAGATCTG
GCCTAAGCTTCGGGTCTGGCGCATCTTCTCCACTGACAAGCACACCCTGGTAAAGGCATAATTGAC
AGCACTGTTGGGAAACACCGGCAGGTCTGGCTGTCACTGGTGTGGCACAATGACGGGCTGCTCTGA
AGAAAGCGGATGTTGGTTTTGCCATGGGCATCGCAGGCACAGATGTAGCAAAGGAGGCTTACAGATCAT
CCTAACAGATGACAACCTCACAGCATTGTGAAGCAGTGTGTGGGACGAAATGTCTATGACAGCATC
TCCAAGTTCCTGCAGTTCAGCTCACTGTCAATGTGGTGGCCGTGATTGTAGCCTTCACTGGAGCCGTGA
TCACTCAGGATCCCCATTGAAAGCTGTGCAGATGTTGTGGGTTAATCTGATCATGGACACTTTTGCTTC
ATTGGCCCTGGCCACAGAGCCCCCTACGGAATCTCTGTTGAAGCGGCGCCCTATGGCCGAAATAAGCCT
CTGATCTCACGCACTATGATGAAGAATCTTGGGCCATGCATTCTATCAGCTCATTGTCACTTTATCC
TTGTCTTTCGGGTGAGAAATCTTTGATATTGATAGTGGGAGGAAGGCACCTCTACATTCACCACCCAG
CCAGCACTATACCATTGTTTTAACACCTTCGTGCTGTGCAGCTCTTCAATGAAATCACTCCCGAAAG
ATCCATGGAGAGAAGAAGCTCTTTTCAGGCATCTACCGCAACATTATCTTCTGCTCTGTAGTCTTGGCA
CATTCTGCTGCCAGATTTTCATCGTGAATTTGGGGTAAACCCTCAGTTGTACAAGCCTCAGCCTGTC
TCAGTGGCTGTGGTGTCTTTCATTGGGATTGGAGAATTCTGTGGGGCCAGTTCATCTCCGAATACCT
ACCCGATCCCTGAAGTTCCTGAAGGAGGCTGGGCATGGCACCACCAAAGAGGAGATCACCAAGGATGCCG
AGGGACTGGATGAGATTGACCATGCTGAGATGGAGCTGCGCCGAGGCCAGATCCTCTGGTTCGGGGCCT
GAACCGTATCCAGACTCAGATCAAAGTGGTCAAAGCGTTCATAGTTCCTCCACGAAAGCATTAGAAA
CCCTACAACCAAAAGTCCATCCACAGCTTCATGACCCACCCTGAATTCGCATAGAGGAGGAGTTGCCAC
GAACACCACTCCTGGATGAGGAAGAGGAGGAAAATCCTGACAAGGCTTCTAAGTTTGGGACTAGGGTGT
CCTGTTGGATGGTGAAGTCACTCCATATGCCAATACAAACAACAATGCGGTGGATTGCAACCAAGTGCAG
CTCCCCAGTCGGACAGCTCTCTACAGAGCCTAGAGACATCAGTT

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC213835 representing NM_001684
 Red=Cloning site Green=Tags(s)

```

MTNPSTRVLPANSMAESREGDFGCTVMELRKLMELESRDALTQINVHYGGVQNLCSRLKTSPEVGLSGNP
ADLEKRRQVFVGHNVIPPKPKTFLELVWEALQDVTLLIILEIAAIIISLVSFYRPAGEENELCGQVATTPE
DENEAQAGWIEGAAILFSVIIIVLVTAFNDSKEKQFRGLQCRIEQEQKFSIIRNGQLIQLPVAEIVVGD
IAQVKYGDLLPADGILIQNDLKIDESSLTGESDHVKKSLDKDPMMLSGTHVMEGSGRMVTVAVGVNSQT
GIILTLLGVNEDDEGEKKKKGKQGVPENRNKAKTQDGVLEIQPLNSQEGIDNEEKDKKAVKVPKKEKS
VLQGKLRVAVQIGKAGLLMSALTVFILILYFVIDNFVNRPPWLPPECTPIYIQYFVKFFIIGITVLVVA
VPEGLPLAVTISLAYSVKMMKDNLLVRHLDACETMGNATAICSDKTGTLTMNRMTVVQAYIGGIHYRQI
PSPDVFLPKVLDLIVNGISINSAYTSKILPPEKEGGLPRQVGNKTECALLGFVTDLKQDYQAVRNEVPPE
KLYKVVTFNSVRKSMSTVIRNPNNGGFRMYSKGASEIILRKCNRILDRKGEAVPFKNKDRDDMVRTVIEPM
ACDGLRTICIAYRDFDDETPSWDNENEILTELTCIAVVGIEDPVRPEVPDAIAKCKQAGITVRMVTGONI
NTARAIATKCGILTPGDDFLCLEGKEFNRLIRNEKGEVEQEKLKDWPKLRVLARSSPTDKHTLVKGIID
STVGEHRQVVAVTGDGTNDGPALKKADVGFAMGIAGTDVAKEASDIILTDDNFTSIVKAVMWGRNVYDSI
SKFLQFQLTVNVAVIVAVTGFACITQDSPLKAVQMLWVNLIMDTFASLALATEPPTESLLKRRPYGRNKP
LISRTMMKNILGHAFYQLIVIFILVFAGEKFFDIDSGRKAPLHSPPSQHYTIVFNTFVLMQLFNEINSRK
IHGEKNVFSGIYRNIIIFCSVVLGTFICQIFIVEFGGKPFSTLSLSQWLWCLF IGIGELLWQGFISAIP
TRSLKFLKEAGHTTKEEITKDAEGLDEIDHAEMELRRGQILWFRGLNRIQTQIKVVKAFHSSLHESIQA
PYNQKSIHSFMTHPEFAIEEELPRTPLLDEEEENPDKASKFGRVLLLDGEVTPYANTNNNAVDCNQVQ
LPQSDSSLQSLQSV
  
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3411_a08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

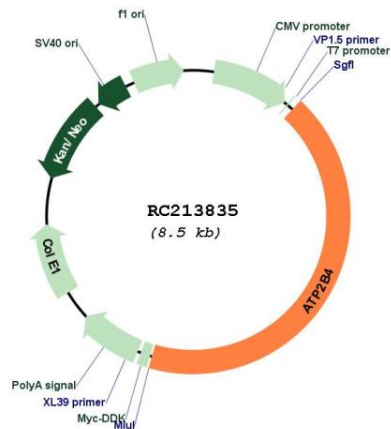


ACCN: NM_001684

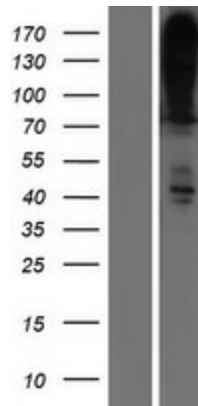
ORF Size: 3615 bp

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_001684.5
RefSeq Size:	8733 bp
RefSeq ORF:	3618 bp
Locus ID:	493
UniProt ID:	P23634
Cytogenetics:	1q32.1
Domains:	E1-E2_ATPase, Cation_ATPase_N, Hydrolase, Cation_ATPase_C
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Calcium signaling pathway
MW:	133.8 kDa
Gene Summary:	The protein encoded by this gene belongs to the family of P-type primary ion transport ATPases characterized by the formation of an aspartyl phosphate intermediate during the reaction cycle. These enzymes remove bivalent calcium ions from eukaryotic cells against very large concentration gradients and play a critical role in intracellular calcium homeostasis. The mammalian plasma membrane calcium ATPase isoforms are encoded by at least four separate genes and the diversity of these enzymes is further increased by alternative splicing of transcripts. The expression of different isoforms and splice variants is regulated in a developmental, tissue- and cell type-specific manner, suggesting that these pumps are functionally adapted to the physiological needs of particular cells and tissues. This gene encodes the plasma membrane calcium ATPase isoform 4. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]

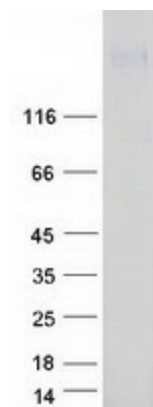
Product images:



Circular map for RC213835



Western blot validation of overexpression lysate (Cat# [LY419808]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213835 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATP2B4 protein (Cat# [TP313835]). The protein was produced from HEK293T cells transfected with ATP2B4 cDNA clone (Cat# RC213835) using MegaTran 2.0 (Cat# [TT210002]).