

## Product datasheet for MR215203

### Atp2b4 (NM\_001167949) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Atp2b4 (NM\_001167949) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Atp2b4  
**Synonyms:** Pmca4  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >MR215203 representing NM\_001167949  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGACGAATCCACCAGGACAAAGCGTGTACGCCAACACAGTGGCTGAGAGCCATGAAGGGGAGTTGGCT  
 GCACCTTAATGGACCTGCGAAAGCTCATGGAGCTTCGTGGAGCTGATGCAGTGGCCAGATCAGTGCCCA  
 CTACGGAGGGGTACAGGAAATCTGCACTAGACTGAAAACCTCCCCTATAGAAGGTCTATCTGGGAACCT  
 GCAGATTTGGAGAAGCGTAGACTTGTTTTGGAAAGAAGCGTGATACCTCCAAAAGGCCCAAGACTTTCT  
 TAGAATTAGTGTGGGAAGCCCTGCAGGATGTCACGCTCATCATCTAGAGATCGCAGCCATCATCTCCCT  
 GGTCTGTCTTCTACCGACCTCCGGGTGGAGATAATGAAATCTGTGGTACATTGCAAGTAGCCAGAA  
 GAAGAGGAGGAAGGAGAAACTGGCTGGATTGAGGGGGCGCCATTCTCGCCTCGGTGATCATTGTGGTAC  
 TCGTGACAGCCTCAATGACTGGAGCAAAGAGAAGCAGTTCGGGGGCTGCAGAGTCGATCGAACTGGA  
 GCAAAAATCTCCATTATCCGGAATGGTCAGCTTATCCAACCTCCAGTGGCTGAGATTGTGGTGGGAGAT  
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 TTGACGAGAGCTCTTGACAGGAGAATCAGATCATGTCAAGAAGACTCTGGACAAAGCCCATGTTGCT  
 CTCGGGGACTCACGTGATGGAAGTTCTGGACGGATGGTAGTACTGCTGTGGGGTCAACTCCAGACT  
 GGAATCATCTTACCCTCTTAGGAGCTAGTGAGGAAGAAGATGATGATGACAAGAAGAAGAAAGTAAAA  
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 TGAGTGCCTCTGTCTATATCCAGTATTTGTCAAGTTCTTCATCATCGGAGTCACTGTATTGGTAGTG  
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 ACAACAACTTGGTACGGCACTTGGATGCTTGTGAGACAATGGGCAATGCCACAGCCATTTGCTCCGATAA  
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 ATCCCACAGCCGACGTCTTCCACCCAAGTTCTGGAGTCTATCGTCAATGGCATCTCTATCAACTGTG



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CTTACACGTCTAAGATTCAGCCTCCAGAAAAGGAGGGAGGCCTACCCCGACAAGTAGGCAACAAGACAGA  
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CTGAGGGAATGGACGAGATTGACCTTGGCAGATGGAGCTTCGCCGAGGCCAGATCCTCTGGGTCCGTGG  
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR215203 representing NM\_001167949  
 Red=Cloning site Green=Tags(s)

MTNPPGQSVSANTVAESHEGEFGCTLMDLRKLMELRGADAVAQISAHYGGVQEICTRLKTSPIEGLSGNP  
 ADLEKRRLVFGKNVIPPKRPKTFLELVWEALQDVTLLIILEIAAIIISLVL SFYRPPGGDNEICGHIASSPE  
 EEEEEGTWIEGAAILASVIIIVLVTA FNDSKEKQFRGLQSRIELEQKFSIIRNGQLIQLPVAEIVVGD  
 IAQIKYGDLLPADGILIQNDLKIDESSLTGESDHVKKTLDKDPMLLSGTHVMEGSGRMVVTAVGVNSQT  
 GIIFTLLGASEEEDDDKKKKKQKQAPENRNKAKTQDGVALEIQPLNSQEGLDSEDEKKEKIARIPKKEK  
 SVLQGGKLR LAVQIGKAGLIMSVLTVVILILYFVVDNFVIQRREWLPECTPVYIYFVKFFIIGVTVLVV  
 AVPEGLPLAVTISLAYSVKMMKDNLLVRHLDACETMGNATAICSDKTGTLMNRMTVVQAYIGGTHYRQ  
 IPQPDVFPKVLLEIVNGISINCA YTSKIQPPEKEGGLPRQVGNKTECGLLGFVTDLKQDYQAVRNEVPE  
 EKLKVVYTFNSVRKSMSTVIRKPEGGRMFSKGASEIMLRRCRDRILNKEGEIKSFRSKDRDNMVRNVI EP  
 MASEGLRTICLAYRDFDGTPEPSWDIEGELTSLICIAVVGIEDPVRPEVPDAIAKCKRAGITVRMVTGDN  
 VNTARAIATKCGILTPKDDFLCLEGKEFNLSIRNEKGEVEQEKLDKIWPKLRLARSSPTDKHTLVKGI I  
 DSTAGEQRQVVAVTGDGTNDGPALKKADVGFAMGIAGTDVAKEASDIIL TDDNFTSIVKAVMWGRNVYDS  
 ISKFLQFQLTVNVVAVIVAF TGACITQDSPLKAVQMLWVNLIMDTFASLALATEPPTESLLRRRYPGRNK  
 PLISRTMMKNILGHAVYQLLIVFLLVFAGDTLFDIDSGRKAPLNSPPSQHYTIVFNTFVLMQLFNEINAR  
 KIHGEKNVFAGVYRNII FCTVVLGTFQCIMIVELGGKPF SCTLMEQMWCLF IGIGELLWGQVISA I  
 PTKSLKFLKEAGHSDKEDISRDT EGMDEIDLAEMLRRGQILWVRGLNRIQTQIDVINKFQTEAPLKRV  
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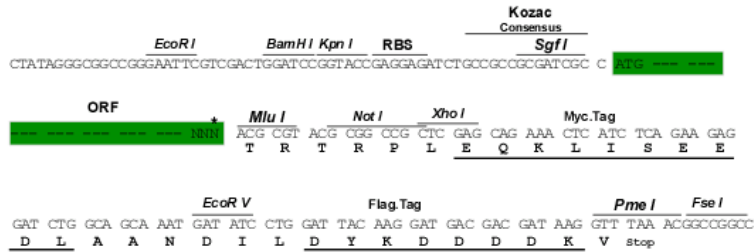
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

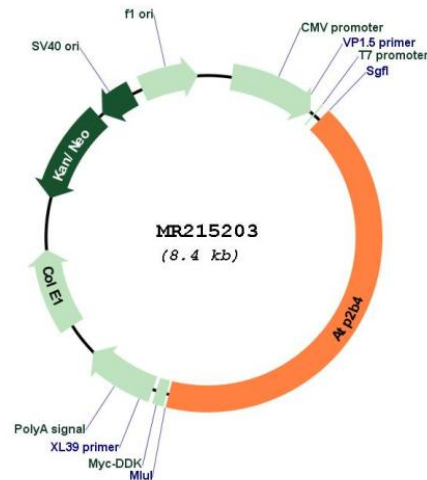
Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

## Plasmid Map:



ACCN: NM\_001167949

ORF Size: 3498 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\\_001167949.2](#), [NP\\_001161421.1](#)

RefSeq Size: 4051 bp

RefSeq ORF: 3501 bp

Locus ID: 381290

UniProt ID: [Q6Q477](#)

Cytogenetics: 1 57.95 cM

**MW:** 129 kDa

**Gene Summary:** Calcium/calmodulin-regulated and magnesium-dependent enzyme that catalyzes the hydrolysis of ATP coupled with the transport of calcium out of the cell (By similarity). By regulating sperm cell calcium homeostasis, may play a role in sperm motility (PubMed:15078889).[UniProtKB/Swiss-Prot Function]