

## Product datasheet for **MG221085**

### Atp2b1 (NM\_026482) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Atp2b1 (NM_026482) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Atp2b1
Synonyms:	2810442I22Rik; E130111D10Rik; Pmca1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG221085 representing NM_026482 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCGACATGGCCAACAACACTCAGTTGCGTATAGCGGTGTGAAGAACTCTTTGAAAGAAGCTAACCATG  
ATGGAGACTTTGGAATTACGCTTACAGAGCTGCGAGCTCATGGAGCTCAGATCCACGGATGCATTACG  
GAAAATACAGGAGAGCTATGGAGATGTCTATGGCATTTCACCAAGTTGAAAACATCTCCAATGAAGGT  
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TGTGTGTGGTGTGGTGACGGCTTTCAACGACTGGAGCAAGGAGAAGCAGTTCCGAGGCCTGCAGAGTGC  
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ATGACCTGAAGATTGATGAGAGCTCATTGACTGGTGAATCTGATCATGTTAAGAAGTCTCTAGATAAGGA  
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CGGCGCGCCATGGAGATGCAACCTCTGAAGAGTGAAGAAGGAGGGGACGGTGTGAGAAAAGACAAGAAG  
AAAGCAAATCTGCCAAAAAGGAAAAATCCGTGTTACAGGGGAAACTCACAAAGCTGGCTGTTTCAAGATTG  
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TACATAAATGAAAAGCATTATAAAAAGGTTCCGGAAACCAGAAGCCATCCCACAAATATCCTGTCCTACC  
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TTATGACACACCCTGAGTTTAGGATAGAAGATTCAGAGCCGCACATCCCCCTTATTGATGACACTGATGC  
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GACAGCGGAATTCACCTTACAATAGAAATGAACAAGTCTGCTACCTTTCATCCCAGGAAGCCCACTAC  
ATAGTTTGAAAACATCACTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG221085 representing NM\_026482  
 Red=Cloning site Green=Tags(s)

MGDMANNSVAYSGVKNSLKEANHDGDFGITL TELRALMELRSTDALRKIQESYGDVYIGICTKLKTS PNEG  
 LSGNPADLERREAVFGKNFIPPKPKTFLQLVWEALQDVTLIILEIAAIVSLGLSFYQPPEGDNALCGEV  
 SVGEEEGEGETGWIEGAAILLSVVCVVLVAFNDWSKEKQFRGLQSRIEQEKFVIRGGQVIQIPVADI  
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 NSQTGIIFTLGAGGEEEEKDEKKKEKNKKQDGAIENRNKAKAQDGAAMEMQPLKSEEGDGDEKDKK  
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 YINEKHKKVPEPEAIPPNILSYLVGTISVNCAYTSKILPPEKEGGLPRHVGNKTECALLGFLDLKRDY  
 QDVRNEIPEEALYKVYTFNSVRKSMSTVLKNSDGSFRIFSKGASEIILKCKFKILSANGEAKVFRPRDRD  
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 GITVRMVTGDNINTARAIATKCGILHPGEDFLCLEGKDFNRRIRNEKGEIEQERIDKIWPKLRVLARSSP  
 TDKHTLVKGIIDSTVSEQRQVAVTGDGTNDGPALKKADVGFAMGIAGTDVAKEASDIILTDDNFTSIVK  
 AVMWGRNYYDSISKFLQFLTVNVVAVIVAF TGACITQDSPLKAVQMLWVNLIMDTLASLALATEPPTES  
 LLLRKPYGRNKPLISRTMMKNILGHAFYQLVVVFTLLFAGEKFFDIDSGRNAPLHAPPSEHYTIVNTFV  
 LMQLFNEINARKIHGERNVFEGIFNNAIFCTIVLGTFFVQIIIVQFGGKPFSCSELSIEQWLWSIFLGMG  
 TLLWGQLISTIPTSRKFLKEAGHTQKEEIPPEELAEDVEEIDHAERELRRGQILWFRGLNRIQTQIRV  
 VNAFRSSLYEGLEKPESSIHNFMTHEFRIEDSEPHIPLIDDDAEDDAPTNRNSSPPSPNKNNAV  
 DSGIHLTIEMNKSATSSSPGSPHLSLETSL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

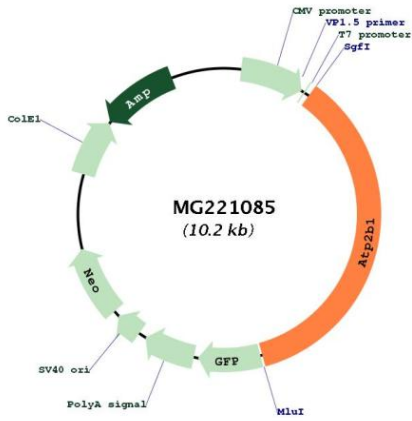


**ACCN:** NM\_026482

**ORF Size:** 3660 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_026482.2</a> , <a href="#">NP_080758.1</a>
<b>RefSeq Size:</b>	7130 bp
<b>RefSeq ORF:</b>	3663 bp
<b>Locus ID:</b>	67972
<b>UniProt ID:</b>	<a href="#">G5E829</a>
<b>Cytogenetics:</b>	10 C3
<b>Gene Summary:</b>	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]

Product images:



Circular map for MG221085