

Product datasheet for **RC223684**

ATP7B (NM_001005918) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP7B (NM_001005918) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATP7B
Synonyms:	PWD; WC1; WD; WND
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC223684 representing NM_001005918 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGAGCAGGAGACAGATCACAGCCAGAGAAGGGCCAGTCGGAAAATCTTATCTAAGCTTTCTT
TGCTACCCGTGCCTGGGAACCAGCAATGAAGAAGAGTTTTGCTTTTGACAATGTTGGCTATGAAGTG
TCTGGATGGCCTGGGCCCTTCTCTCAGGTGGCCACCAGCACAGTCAGGATCTTGGGCATGACTTGCCAG
TCATGTGTGAAGTCCATTGAGGACAGGATTTCCAATTTGAAAGGCATCATCAGCATGAAGTTTCCCTGG
AACAAAGGCAGTGCCACTGTGAAATATGTGCCATCGGTTGTGTGCCTGCAACAGGTTTGGCCATCAAATGG
GGACATGGGCTTCGAGGCCAGCATTGCAGAAGGAAAGGCAGCCTCCTGGCCCTCAAGGTCCTTGCCCTGCC
CAGGAGGCTGTGGTCAAGCTCCGGTGGAGGGCATGACCTGCCAGTCCTGTGTCAGCTCCATTGAAGGCA
AGGTCCGGAACTGCAAGGAGTAGTGAGAGTCAAAGTCTCACTCAGCAACCAAGAGGCCGTCATCACTTA
TCAGCCTTATCTCATTAGCCCGAAGACCTCAGGGACCATGTAATGACATGGGATTTGAAGCTGCCATC
AAGAGCAAAGTGGCTCCCTTAAGCCTGGGACCAATTGATATTGAGCGGTTACAAAGCACTAACCCAAAGA
GACCTTTATCTTCTGCTAACCAGATTTTAATAATTCTGAGACCTTGGGGCACCAAGGAATGTTGGT
CACCTCCAAGTGAATAGATGGAATGCATTGTAAGTCTTGCCTTGAATATTGAAGAAAATATTGGC
CAGCTCCTAGGGTTCAAAGTATTCAAAGTGTCTTGGAGAACAAAAGTCCCAAGTAAAGTATGACCCTT
CTTGATACCAGCCAGTGGCTCTGCAGAGGGCTATCGAGGCACTTCCACCTGGGAATTTAAAGTTTCTCT
TCCTGATGGAGCCGAAGGGAGTGGGACAGATCACAGGCTTCCAGTTCTCATTCCCTGGCTCCCCACCG
AGAAACCAGGTCAGGGCACATGCAGTACCCTCTGATTGCCATTGCCGGCATGACCTGTGCATCCTGTG
TCCATTCCATTGAAGGCATGATCTCCAACTGGAAGGGTGCAGCAAATATCGGTGTCTTTGGCCGAAGG
GACTGCAACAGTCTTTATAATCCCTCTGTAATTAGCCAGAAGAACTCAGAGCTGCTATAGAAGACATG
GGATTTGAGGCTTCAGTCGTTTCTGAAAGCTGTTCTACTAACCTCTTGGAAACCACAGTCTGGGAATT
CCATGGTGCAAACTACAGATGGTACACCTACATCTGTGCAGGAAGTGGCTCCCCACACTGGGAGGCTCCC
TGCAAACCATGCCCGGACATCTTGCAAAGTCCCAATCAACCAGAGCAGTGGCACCCGAGAAGTGC
TTCTTACAGATCAAAGGCATGACCTGTGCATCCTGTGTCTAACATAGAAGGAATCTGCAGAAAGAAG



CTGGTGTCTCTCCGTGTTGGTTGCCTTGATGGCAGGAAAGGCAGAGATCAAGTATGACCCAGAGGTCAT
CCAGCCCCTCGAGATAGCTCAGTTCATCCAGGACCTGGGTTTTGAGGCAGCAGTCATGGAGGACTACGCA
GGCTCCGATGGCAACATTGAGCTGACAATCACAGGGATGACCTGCGCGTCCTGTGTCCACAACATAGAGT
CCAAACTCAGCAGGACAAATGGCATCACTTATGCCTCCGTTGCCCTTGCCACCAGCAAAGCCCTTGTTAA
GTTTGACCCGAAATTATCGGTCCACGGATATTATCAAATTTGAGAGCAAAACCTCAGAAGCCCTG
GCTAAACTCATGTCTCTCAAGCCACAGAAGCCACCGTTGTGACCCTTGGTGAGGACAATTAATCATCA
GGGAGGAGCAAGTCCCCATGGAGCTGGTGCAGCGGGGCGATATCGTCAAGTGGTCCCTGGGGGAAAGTT
TCCAGTGGATGGGAAAGTCCCTGGAAGGCAATACCATGGCTGATGAGTCCCTCATCACAGGAGAAGCCATG
CCAGTCACTAAGAAACCCGGAAGCACTGTAATTGCGGGTCTATAAATGCACATGGCTCTGTGCTCATT
AAGTACCACGTGGCAATGACACCACTTTGGCTCAGATTGTGAAACTGGTGGAAAGAGGCTCAGATGTC
AAAGAACCCCAACAAGCACATCTCCAGACAGAGGTGATCATCCGGTTTGCTTCCAGACGTCCATCACG
GTGCTGTGCAATTGCTGCCCTGCTCCCTGGGGCTGGCCACGCCACGGCTGTATGGTGGGCACCCGGG
TGGCCGCGCAGAACGGCATCCTCATCAAGGGAGGCAAGCCCTGGAGATGGCGACAAGATAAAGACTGT
GATGTTTGACAAGACTGGCACCATTACCATGGCGTCCCAGGGTCATGCGGGTGTCTCTGCTGGGGAT
GTGGCCCACTGCCCTCAGGAAGTTCTGGCTGTGGTGGGACTGCGGAGGCCAGCAGTGAACCCCT
TGGGCGTGGCAGTCACCAATACTGTAAGAGGAACTTGAACAGAGACCTTGGGATACTGCACGGACTT
CCAGGCAGTGCCAGGCTGTGGAATTGGGTGCAAAGTCAGCAACGTGGAAGGCATCCTGGCCACAGTGAG
CGCCCTTTGAGTGCACCGGCCAGTCACTGAATGAGGCTGGCAGCCTTCCCGCAGAAAAGATGCAGTCC
CCCAGACCTTCTCTGTGCTGATTGGAACCGTGAAGTGGCTGAGGCGCAACGGTTTAAACATTTCTAGCGA
TGTCAGTGACGCTATGACAGACCACGAGATGAAAGGACAGACAGCCATCCTGGTGGCTATTGACGGTGTG
CTCTGTGGGATGATCGCAATCGCAGACGCTGTCAAGCAGGAGGCTGCCCTGGCTGTGCACACGCTGCAGA
GCATGGGTGTGGACGTGGTTCTGATCACGGGGACAACCGGAAGACAGCCAGAGCTATTGCCACCCAGGT
TGGCATCAACAAAGTCTTTGCAGAGGTGCTGCCTTCGCACAAGGTGGCCAAGTCCAGGAGCTCCGAAT
AAAGGGAAGAAAGTCGCCATGGTGGGGATGGGGTCAATGACTCCCCGGCCTTGGCCAGGCAGACATGG
GTGTGGCCATTGGCACCGGCACGGATGTGGCCATCGAGGCAGCCGACGTCGTCTTATCAGAAATGATTT
GCTGGATGGTGGCTAGCATTACCTTTCCAAGAGGACTGTCCGAAGGATACGCATCAACCTGGTCTG
GCACTGATTTATAACCTGGTTGGGATACCCATTGCAGCAGGTGTCTTATGCCCATCGGCATTGTGCTGC
AGCCCTGGATGGGCTCAGCGGCCATGGCAGCCTCCTCTGTGTCTGTGGTGTCTCATCCCTGCAGCTCAA
GTGCTATAAGAAGCCTGACCTGGAGAGGTATGAGGCACAGGCGCATGGCCACATGAAGCCCTGACGGCA
TCCCAGGTCAGTGTGCACATAGGCATGGATGACAGGTGGCGGGACTCCCCAGGGCCACACCATGGGACC
AGGTCAGCTATGTCAGCCAGGTGTGCTGTCTCCTGACGTCCGACAAGCCATCTCGGCACAGCGCTGC
AGCAGACGATGATGGGGACAAGTGGTCTCTGCTCCTGAATGGCAGGGATGAGGAGCAGTACATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

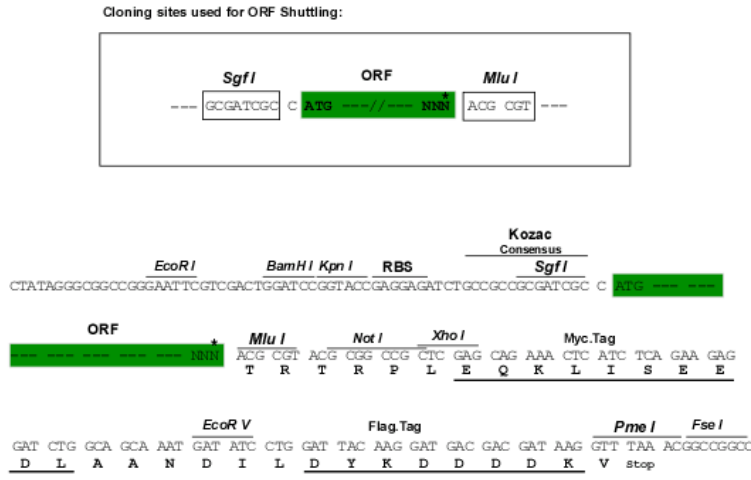
Protein Sequence: >RC223684 representing NM_001005918
 Red=Cloning site Green=Tags(s)

MPEQERQITAREGASRKILSKLSLPTRAWEPAMKKSFAFDNVGYEGGLDGLGPSSQVATSTVRILGMTQ
 SCVKSIEDRISNLKGIISMKVSLLEQGSATVKYVPSVVCLQQVCHQIGDMGFEASIAEGKAASWPSRSLPA
 QEAVVKLRVEGMTQCSCVSSIEGKVRKLQGVVRVKVLSNQEAVITYQPYLIQPEDLRDHVNDMGFEAAI
 KSKVAPLSLGPIDIERLQSTNPKRPLSSANQNFNNSETLGHQGSVVTLQLRIDGMHCKSCVLNIEENIG
 QLLGVQSIQVSLNKTAQVKYDPSCSPVALQRAIEALPPGNFKVSLPDGAEAGSGTDHRSSSSHSPGSP
 RNQVQGTCTTLIAIAGMTCASCVHSIEGMISQLEGVQQISVSLAEGTATVLYNPSVISPEELRAAIEDM
 GFEASVSESCSTNPLGNHSAGNSMVQTTDGTPTSVQEVAPHTGRLPANHAPDILAKSPQSTRAVAPQKC
 FLQIKGMTASCVSNIERNLQKEAGVLSVLMAGKAEIKYDPEVIQPLEIAQFIQDLGFEAAVMEDIA
 GSDGNIELTITGMTASCVHNIESKLTRTNGITYASVALATSKALVKFDP E I I G P R D I I K I I E S K T S E A L
 AKLMSLQATEAVVTLGEDNLI I R E E Q V P M E L V Q R G D I V K V V P G G K F P V D G K V L E G N T M A D E S L I T G E A M
 P V T K K P G S T V I A G S I N A H G S V L I K A T H V G N D T T L A Q I V K L V E E A Q M S K N P N K H I S Q T E V I I R F A F Q T S I T
 V L C I A C P C S L G L A T P T A V M V G T G V A A Q N G I L I K G G K P L E M A H K I K T V M F D K T G T I T H G V P R V M R V L L L G D
 V A T L P L R K V L A V V G T A E A S S E H P L G V A V T K Y C K E E L G T E T L G Y C T D F Q A V P G C G I G C K V S N V E G I L A H S E
 R P L S A P A S H L N E A G S L P A E K D A V P Q T F S V L I G N R E W L R R N G L T I S S D V S D A M T D H E M K G Q T A I L V A I D G V
 L C G M I A I A D A V K Q E A A L A V H T L Q S M G V D V V L I T G D N R K T A R A I A T Q V G I N K V F A E V L P S H K V A K V Q E L Q N
 K G K K V A M V G D G V N D S P A L A Q A D M G V A I G T G D V A I E A A D V V L I R N D L L D V V A S I H L S K R T V R R I R I N L V L
 A L I Y N L V G I P I A A G V F M P I G I V L Q P W M G S A A M A A S S V S V V L S S L Q L K C Y K K P D L E R Y E A Q A H G H M K P L T A
 S Q V S V H I G M D D R W R D S P R A T P W D Q V S Y S V S V S L S S L T S D K P S R H S A A A D D D G D K W S L L L N G R D E E Q Y I

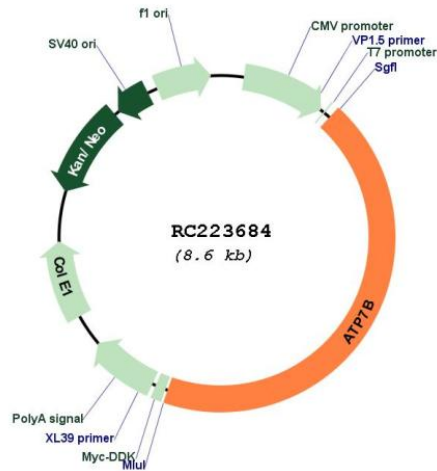
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001005918

ORF Size: 3774 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_001005918.3](#)

RefSeq Size: 6034 bp

RefSeq ORF: 3777 bp

Locus ID: 540

Cytogenetics: 13q14.3

Protein Families: Druggable Genome, Transmembrane

MW: 133.6 kDa

Gene Summary: This gene is a member of the P-type cation transport ATPase family and encodes a protein with several membrane-spanning domains, an ATPase consensus sequence, a hinge domain, a phosphorylation site, and at least 2 putative copper-binding sites. This protein is a monomer, and functions as a copper-transporting ATPase which exports copper out of the cells, such as the efflux of hepatic copper into the bile. Alternate transcriptional splice variants, encoding different isoforms with distinct cellular localizations, have been characterized. Mutations in this gene have been associated with Wilson disease which is characterized by copper accumulation. [provided by RefSeq, Dec 2019]