

Product datasheet for RC235278

ATP7B (NM_001243182) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP7B (NM_001243182) 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:	>RC235278 representing NM_001243182 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTGAGCAGGAGACAGATCACAGCCAGAGAAGGGCCAGTCGGAAAATCTTATCTAAGCTTTCTT
TGCTACCCGTGCCTGGGAACCAGCAATGAAGAAGAGTTTTGCTTTTGACAATGTTGGCTATGAAGTGG
TCTGGATGGCCTGGGCCCTTCTCTCAGGTGGCCACCAGCACAGTCAGGATCTTGGGCATGACTTGCCAG
TCATGTGTGAAGTCCATTGAGGACAGGATTTCCAATTTGAAAGGCATCATCAGCATGAAGTTTCCCTGG
AACAAGGCAGTGCCACTGTGAAATATGTGCCATCGGTTGTGTGCCTGCAACAGGTTTGGCCATCAAATGG
GGACATGGGCTTCGAGGCCAGCATTGCAGAAGGAAAGGCAGCCTCCTGGCCCTCAAGGTCCTTGCCCTGCC
CAGGAGGCTGTGGTCAAGCTCCGGTGGAGGGCATGACCTGCCAGTCCTGTGTCAGCTCCATTGAAGGCA
AGGTCCGAAACTGCAAGGAGTAGTGAGAGTCAAAGTCTCACTCAGCAACCAAGAGGCCGTCATCACTTA
TCAGCCTATCTCATTAGCCCGAAGACCTCAGGGACCATGTAATGACATGGGATTTGAAGCTGCCATC
AAGAGCAAAGTGGCTCCCTTAAGCCTGGGACCAATTGATATTGAGCGGTTACAAAGCACTAACCCAAAGA
GACCTTTATCTTCTGCTAACCAGAAATTTAATAATTCTGAGACCTTGGGGCACCAAGGAAGCCATGTGGT
CACCTCCAAGTGAATAGATGGAATGCATTGCATGATCTCCAAGTGAAGGGGTGCAGCAAATATCG
GTGCTTTGGCCGAAGGACTGCAACAGTTCTTTATAATCCCTCTGTAATTAGCCAGAAGAACTCAGAG
CTGCTATAGAAGACATGGGATTTGAGGCTTCAGTCGTTTCTGAAAGCTGTTCTACTAACCCTCTTGAAA
CCACAGTGTGGGAATCCATGGTGAACTACAGATGGTACACCTACATCTGTGCAGGAAGTGGCTCCC
CACACTGGGAGGCTCCCTGCAAACCATGCCCGGACATCTGGCAAAGTCCCAACATCAACCAGAGCAG
TGGCACCCGAGAAGTCTTCTTACAGATCAAAGGCATGACCTGTGCATCCTGTGTCTAACATAGAAA
GAATCTGCAGAAAGAAGCTGGTGTCTCTCCGTGGTGGCTTGCCTTGATGGCAGGAAAGGCAGAGATCAAG
TATGACCCAGAGGTCATCCAGCCCTCGAGATAGCTCAGTTCATCCAGGACCTGGGTTTTGAGGCAGCAG
TCATGGAGGACTACGCAGGCTCCGATGGCAACATTGAGCTGACAATCACAGGGATGACCTGCGCGTCTG
TGTCACAACATAGAGTCCAAACTCACGAGGACAAATGGCATCACTTATGCCTCCGTTGCCCTTGCCACC
AGCAAAGCCCTTGTTAAGTTTGACCCGGAATATCGTCCACGGGATATTATCAAAATTATTGAGGAAA



[View online >](#)

TTGGCTTTCATGCTTCCCTGGCCAGAGAAACCCCAACGCTCATCACTTGGACCACAAGATGGAATAAA
GCAGTGAAGAAGTCTTTCCTGTGCAGCCTGGTGTGGCATCCCTGTATGGCCTTAATGATCTATATG
CTGATACCCAGCAACGAGCCCCACCAGTCCATGGTCTGGACCACAACATCATTCCAGGACTGTCCATTC
TAAATCTCATCTTCTTTATCTTGTGTACCTTTGTCCAGCTCCTCGGTGGGTGGTACTTCTACGTTACGGC
CTACAAATCTCTGAGACACAGGTCAGCCAACATGGACGTGCTCATCGTCTGGCCACAAGCATTGCTTAT
GTTTATTCTCTGGTCATCCTGGTGGTGGTGGCTGAGAAGGCGGAGAGGAGCCCTGTGACATTCTTCG
ACACGCCCCCATGCTCTTTGTGTTTCATTGCCCTGGCCGGTGGCTGGAACACTTGGCAAAGAGCAAAAC
CTCAGAAGCCCTGGCTAAACTCATGTCTCTCAAGCCACAGAAGCCACCGTTGTGACCCCTGGTGAGGAC
AATTTAATCATCAGGGAGGAGCAAGTCCCCATGGAGCTGGTGCAGCGGGCGATATCGTCAAGGTGGTCC
CTGGGGGAAAGTTTCCAGTGGATGGGAAAGTCTGGAAGGCAATACCATGGCTGATGAGTCCCTCATCAC
AGGAGAAGCCATGCCAGTCACTAAGAAACCCGGAAGCACTGTAATTGCGGGGTCTATAAATGCACATGGC
TCTGTGCTCATTAAAGCTACCCACGTGGGCAATGACACCACTTTGGCTCAGATTGTGAACTGGTGGAA
AGGCTCAGATGTCAAAGGCACCCATTGAGCAGTGGCTGACCGGTTTGTGGATATTTTGTCCATTTAT
CATCATCATGTCAACTTTGACGTTGGTGGTATGGATTGTAATCGGTTTTATCGATTTTGGTGTGTTTCAG
AGATACTTTCCTAACCCCAACAAGCACATCTCCAGACAGAGGTGATCATCCGGTTTGTCTTCCAGACGT
CCATCACGGTGTGTGCATTGCCTGCCCTGTCCCTGGGGCTGGCCACGCCACGGCTGTGATGGTGGG
CACCGGGTGGCCGCGCAGAACGGCATCCTCATCAAGGGAGGCAAGCCCTGGAGATGGCGCACAAGATA
AAGACTGTGATGTTTGACAAGACTGGCACCATTACCCATGGCGTCCCCAGGGTATGCGGGTGTCTCTGC
TGGGGGATGTGGCCACACTGCCCTCAGGAAGTTCTGGCTGTGGTGGGACTGCGGAGGCCAGCAGTGA
ACACCCCTTGGGCGTGGCAGTCAACAAACTGTAAAGAGGAACCTTGAACAGAGACCTTGGGATACTGC
ACGACTTCCAGGCAGTCCAGGCTGTGGAATTGGGTGCAAAGTCAGCAACGTGGAAGGCATCCTGGCCC
ACAGTGAGCGCCCTTTGAGTGCACCGCCAGTCACTGAATGAGGCTGGCAGCCTTCCCAGAAAAAGA
TGCAGTCCCCAGACCTTCTCTGTGCTGATTGGAACCGTGAGTGGCTGAGGCGCAACGGTTTAAACCATT
TCTAGCGATGTCAGTGACGCTATGACAGACCAGAGATGAAAGGACAGACAGCCATCCTGGTGGCTATTG
ACGGTGTGCTCTGTGGGATGATCGCAATCGCAGACGCTGTCAAGCAGGAGGCTGCCCTGGCTGTGCACAC
GCTGCAGAGCATGGGTGTGGACGTGTTTCTGATCACGGGGACAACCGGAAGACAGCCAGAGCTATTGCC
ACCCAGGTTGGCATCAACAAAGTCTTTCAGAGGTGCTGCCTTCGCACAAGGTGGCCAAGGTCCAGGAGC
TCCAGAATAAAGGGAAGAAAGTCGCCATGGTGGGGATGGGGTCAATGACTCCCCGGCCTTGGCCCAGGC
AGACATGGGTGTGGCCATTGGCACCGGCACGGATGTGGCCATCGAGGCAGCCGACGTCGCTTATCAGA
AATGATTTGCTGGATGTGGTGGCTAGCATTACCTTTCCAAGAGGACTGTCCGAAGGATACGCATCAACC
TGGTCTGGCACTGATTTATAACCTGGTTGGGATACCCATTGCAGCAGGTGTCTTATGCCATCGGCAT
TGTGCTGCAGCCCTGGATGGGCTCAGCGCCATGGCAGCCTCCTCTGTGTCTGTGGTGTCTCATCCCTG
CAGCTCAAGTGCTATAAGAAGCCTGACCTGGAGAGGTATGAGGCACAGGCGCATGGCCACATGAAGCCCC
TGACGGCATCCCAGGTCAGTGTGCATAGGCATGGATGACAGGTGGCGGACTCCCCAGGGCCACACC
ATGGGACCAGGTCACTATGTCAGCCAGGTGTGCTGTCTCCCTGACGTCGACAAAGCCATCTCGGCAC
AGCGCTGCAGCAGACGATGATGGGGACAAGTGGTCTCTGCTCCTGAATGGCAGGGATGAGGAGCAGTACA
TC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC235278 representing NM_001243182
 Red=Cloning site Green=Tags(s)

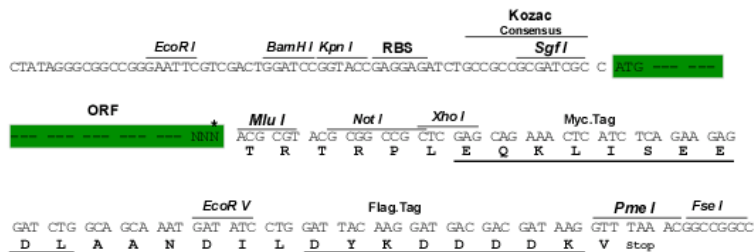
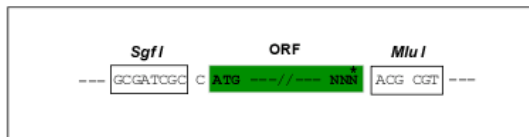
MPEQERQITAREGASRKILSKLSLPTRAWEPAMKKSFAFDNVGYEGGLDGLGPSSQVATSTVRILGMTQ
 SCVKSIEDRISNLKGIISMKVSLEQGSATVKYVPSVVCLQQVCHQIGDMGFEASIAEGKAASWPSRSLPA
 QEAVVKLRVEGMTCQSCVSSIEGKVRKLQGVVRVKVLSNQEAVITYQPYLIQPEDLRDHWNDMGFEAAI
 KSKVAPLSLGPIDIERLQSTNPKRPLSSANQFNNSSETLGHQGS HVVTLQLRIDGMHCMISQLEGVQQIS
 VSLAEGTATVLYNPSVISPEELRAAIEDMGFEASVSESCSTNPLGNHSAGNSMVQTTDGTPTSVQEVAP
 HTGRLPANHAPDILAKSPQSTRAVAPQKCFQLIKGMTCASCVSNIERNLQKEAGVLSVVALMAGKAEIK
 YDPEVIQPLEIAQFIQDLGFEAAVMEDYAGSDGNIELTITGMTCASCVHNIESKLTRTNGITYASVALAT
 SKALVKFDPEIIGPRDIKIIIEEIGFHASLAQRNPNAAHLDHKMEIKQWKSFLCSSLVFGIPVMALMIYM
 LIPSNEPHQSMVLDHNIIPGLSILNLIFFILCTFVQLLGGWYFYVQAYKSLRHRSANMDVLIVLATSIA
 VYSLVILVVAVAEKAERSPVTFDTPPMLFVFIALGRWLEHLAKSKTSEALAKLMSLQATEATVVTLGED
 NLIREEQVPMELVQRGDIVKVPVGGKFPVDGKVLGNTMADESITGEAMPVTKKPGSTVIAGSINAHG
 SVLIKATHVGNDDTLAQIVKLVEEAQMSKAPIQQLADRFSGYFVPIIIMSTLTLVWVIVIGFIDFGVVQ
 RYFPNPNKHISQTEVIRFAFQTSITVLCIACPCSLGLATPTAVMVTGVAQNGILIKGGKPLEMAHKI
 KTYMFDKTGTITHGVPRVMRVLVLLGDVATLPLRKVLAVVGTAEASSEHPLGVAVTKYCKEELGTETLGYC
 TDFQAVPGCGIGCKVSNVEGILAHSERPLSAPASHLNEAGSLPAEKDAVPQTFSVLIGNREWLRNGLTI
 SSDVSDAMTDHEMKGQTAILVAIDGVLGCMIAIADAVKQEAALAVHTLQSMGVDVVLITGDNRKTARAI
 TQVGINKVFAEVLPSHKVAKVQELQNKGGKVAMVGDGVDNSPALAQADMVAIGTGDVAIEAADVVLIR
 NDLLDVVASIHL SKRTVRRIRINLVLAL IYNLVGPIAAGVFMPIGIVLQPMGSAAMAASSVSVLSSL
 QLKCYKPKDLERYEAQAHGHMKPLTASQSVHIGMDDRWDRSPRATPWDQVSYVSQVLSLSTSDKPSRH
 SAAADDDGDKWSLLLNGRDEEQYI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:
Cloning Scheme:

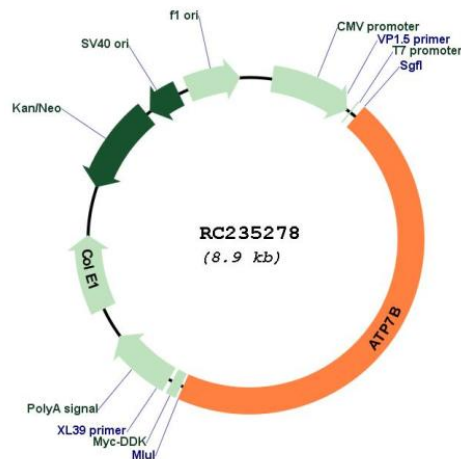
Sgfl-MluI

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001243182

ORF Size: 4062 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_001243182.1](#), [NP_001230111.1](#)

RefSeq Size: 6322 bp

RefSeq ORF: 4065 bp

Locus ID: 540

UniProt ID: [P35670](#)

Cytogenetics: 13q14.3

Protein Families: Druggable Genome, Transmembrane

MW: 146.3 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]