

Product datasheet for **SC308719**

ATP7A (NM_000052) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: ATP7A (NM_000052) Human Untagged Clone
Tag: Tag Free
Symbol: ATP7A
Synonyms: DSMAX; MK; MNK; SMAX3
Mammalian Cell Selection: None
Vector: pCMV6-XL4
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_000052 edited
 CCGCCGACGCCGACGCTACTGTGACTTCTCCGATTGTGTGAGCTTTGTTGGAGCCTGCGT
 ACGTGGATTTATCGCTGCCACGGTCTGCGTAGCTCCAGAGGTTTAAACCATAGGATAGAGA
 AACCCAGGAATGTAATGAGGAAATCAAAATGGATCCAAGTATGGGTGTGAATTCTGTTACC
 ATTTCTGTTGAGGGTATGACTTGCAATTCCTGTGTTTGGACCATTGAGCAGCAGATTGGA
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ACTAAAGGGATGACACCAGTTCAAGACAAGGAGGAAGGAAAGAATTTCATCTAAGTGTTAC
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GCCCAAGAAGAAGAAAATGAAAAATTTGAAGATTTGAGAGCATGAAGATATTCATGCTTT
TGAATCAAAAATATTGAAGATACTCTCAAGCCTGTATCCCTGCCACTGGGGAGCAATGA
CTTTCAAAGCACTGTGTATAAAACATCTAGTTTTAGAAGGGAAACAGTTGAACTGTTTA
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CCTTGACAGGTGCTTTTTTAGATGCTCCAATATGCTTCTTTTGTATTTCTTTTCGAGCT
AACCAAGTTTAGGTGTTTTTCATTGATTAATAAATAACTGACAAGTCTTAATATTTTG
CTCCTTTTTAAATTTGTAGCTCAAAAGACCTTAAAGGTCTGTAGGGTCCCTGCCTCCC
ATCTTTCCACTGTTGAAAAAGTATATCAAATTATTCCTCAAGTTTCTAGCTCTGTGC
TCAGTTTCAGTTCCTCCTGCCAAGTTGGACTCTAAGTTATTCTTCATGTAGTCTGCTGA
TCTCAGTCTGAAACTTAACATTATGAGCCTTTTCTGCTCAAAAATTTTCAAAGATTAA
AACTATTATACATATACAGGTATATAAAATTACCTGGATTCACTAAAAAAAAAAAAAAAA
AAAAA
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- Restriction Sites:** Please inquire
- ACCN:** NM_000052
- Insert Size:** 5600 bp
- OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.
- 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:** The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference. This clone may be unstable or toxic at high copy number in common E. coli strain. We recommend using a lower copy number E. coli strain, such as CopyCutter strain (<http://www.epibio.com/item.asp?ID=435>) for transformation and plasmid preparation. Please be aware that the DNA yield could be low. Additional aliquots of this clone can be ordered from OriGene.
- 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_000052.2](#), [NP_000043.2](#)

RefSeq Size: 8028 bp

RefSeq ORF: 4503 bp

Locus ID: 538

UniProt ID: [Q04656](#)

Cytogenetics: Xq21.1

Domains: E1-E2_ATPase, Hydrolase, HMA

Protein Families: Druggable Genome, Transmembrane

Gene Summary: This gene encodes a transmembrane protein that functions in copper transport across membranes. This protein is localized to the trans Golgi network, where it is predicted to supply copper to copper-dependent enzymes in the secretory pathway. It relocalizes to the plasma membrane under conditions of elevated extracellular copper, and functions in the efflux of copper from cells. Mutations in this gene are associated with Menkes disease, X-linked distal spinal muscular atrophy, and occipital horn syndrome. Alternatively-spliced transcript variants have been observed. [provided by RefSeq, Aug 2013]
Transcript Variant: This variant (1) represents the longest transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.