

Product datasheet for **SC300001**

ATM (NM_000051) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: ATM (NM_000051) Human Untagged Clone
Tag: Tag Free
Symbol: ATM
Synonyms: AT1; ATA; ATC; ATD; ATDC; ATE; TEL1; TELO1
Mammalian Cell Selection: None
Vector: [pCMV6-XL4](#)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_000051 edited
 ATGAGTCTAGTACTTAATGATCTGCTTATCTGCTGCCGTCAACTAGAACATGATAGAGCT
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GACCCCAAAAATCTCAGCCGACTTTTCCAGGATGGAAAGCTTGGGTGTGA
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Restriction Sites:

Please inquire

ACCN:

NM_000051

Insert Size:

9800 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 ORF of this clone has been fully sequenced and found to be a perfect match to NM_000051.3.

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_000051.3](#), [NP_000042.3](#)

RefSeq Size: 13147 bp

RefSeq ORF: 9171 bp

Locus ID: 472

UniProt ID: [Q13315](#)

Cytogenetics: 11q22.3

Protein Families: Druggable Genome, Protein Kinase, Transcription Factors

Protein Pathways: Apoptosis, Cell cycle, p53 signaling pathway

Gene Summary: The protein encoded by this gene belongs to the PI3/PI4-kinase family. This protein is an important cell cycle checkpoint kinase that phosphorylates; thus, it functions as a regulator of a wide variety of downstream proteins, including tumor suppressor proteins p53 and BRCA1, checkpoint kinase CHK2, checkpoint proteins RAD17 and RAD9, and DNA repair protein NBS1. This protein and the closely related kinase ATR are thought to be master controllers of cell cycle checkpoint signaling pathways that are required for cell response to DNA damage and for genome stability. Mutations in this gene are associated with ataxia telangiectasia, an autosomal recessive disorder. [provided by RefSeq, Aug 2010]
Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1 and 2 both encode the same isoform (a).