

## Product datasheet for **SC323678**

### ATR (NM\_001184) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ATR (NM_001184) Human Untagged Clone
Tag:	Tag Free
Symbol:	ATR
Synonyms:	FCTCS; FRP1; MEC1; SCKL; SCKL1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001184, the custom clone sequence may differ by one or more nucleotides

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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for mutant NM_001184 unedited</p> <pre> ACCGCCGTTGAGCAATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA CCGTCAGAATTTTGTAAATACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGTTTTGGCCTCCACA CGGCTCCGTCGGGCGCCGCGCTCTTCCGGCAGCGGTAGCTTTGGAGACGCCGGGAACCCGCGTTGGCGTG GTTGACTAGTGCCTCGCAGCCTCAGCATGGGGGAACATGGCCTGGAGCTGGCTTCCATGATCCCCGCCCT GCGGGAGCTGGGCAGTGCCACACCAGAGGAATAATAACAGTTTGTACAGAAGCCAAGACAAATTCTGTG TCAATTCATTGACCGGATACTTACAGATGTAATGTTTGTGCTTGTAAAACCTGTAAAGAAAAACTGAC TCTCAGCCCACCCTCCGGGGAGGTTGCTGGATTCATCCACCATATCATGAAATCCTCCCAACTTATGTT GGTAAAGGTGATGGGAAGCCTGGAGGGCCAAGGCAAGTGAATGGAATTAGGTATTTGATTCTAACGAGA CCTTCGCGGATTGCGACCACCCCTTCTGTCATTTGGTACACCAGAAAACTGTGAGAGCACCCGTGTC ATTAATAATTTCTCTTTAAAAGCAAGAGATCCTCGCTATTTTTGGGGGACTCTCCAAAAGAATTATTA CACTTTTTGGAACTTGGGTTACCTCCTAGAGAATGTGAGTGGGCATGCTGTGGGAATGGCCCATGTCT CGAGACGCAATAGTACATTAGATGAGACTGGGATATTATCATCATGCTCCTTCAGTGTGAGATGTGCCAA TTGAATATGAGTGCCCTTAACGGTTCACGTATAGCATGTGTTGAAGCGAGCTACTTGCTAAGTGTTCG CGGATTGATCCAAAATAATCCCCGC </pre>
<b>Kinase Domain Sequence:</b>	<p>&gt;SC323678 kinase domain raw sequence. By performing <a href="#">BLASTX</a> analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation</p> <pre> TKCATCTGCTTCTCTTCGAACCAAAGAAGATTTCTTTAAAAGGCTCAGATGGAAAGTTCTACATCATGAT GTGTATGCCAAAAGATGACCTGAGAAAGGATTGTAGACTAATGGAATTCATTCCTTGATTAATAAGTGC TTAAGAAAAGATGCAGAGTCTCGTAGAAGAGAACCTCATATTCGAACATATGCAGTTATCCACTAAATG ATGAATGTGGGATTATTGAATGGGTGAACAACACTGCTGGTTTGA </pre>
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_001184
<b>Insert Size:</b>	8000 bp
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<b>OTI Annotation:</b>	<p>This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." <a href="#">Cell, 2008 May p536-548.</a></p>
<b>Components:</b>	<p>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).</p>

<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>	<u>NM_001184.2, NP_001175.1</u>
<b>RefSeq Size:</b>	8265 bp
<b>RefSeq ORF:</b>	7935 bp
<b>Locus ID:</b>	545
<b>UniProt ID:</b>	<u>Q13535</u>
<b>Cytogenetics:</b>	3q23
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Cell cycle, p53 signaling pathway
<b>Gene Summary:</b>	<p>The protein encoded by this gene is a serine/threonine kinase and DNA damage sensor, activating cell cycle checkpoint signaling upon DNA stress. The encoded protein can phosphorylate and activate several proteins involved in the inhibition of DNA replication and mitosis, and can promote DNA repair, recombination, and apoptosis. This protein is also important for fragile site stability and centrosome duplication. Defects in this gene are a cause of Seckel syndrome 1. [provided by RefSeq, Aug 2017]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).</p>