

Product datasheet for **SC309445**

APAF1 (NM_181868) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	APAF1 (NM_181868) Human Untagged Clone
Tag:	Tag Free
Symbol:	APAF1
Synonyms:	APAF-1; CED4
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_181868, the custom clone sequence may differ by one or more nucleotides

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ATGGATGCAAAAAGCTCGAAATTGTTTGCTTCAACATAGAGAAGCTCTGGAAAAGGACATC
AAGACATCCTACATCATGGATCACATGATTAGTGATGGATTTTTAAACAATATCAGAAGAG
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CAGAGGCCAGTTGTTTTGTCAAGGAAGAAGCTGGTGAATGCAATTCAGCAGAAGCTC
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GGAGTGCATTGGGTTTCAGTTGGGAAACAAGACAAATCTGGGCTTCTGATGAAATGCAG
AATCTTTGCACACGGTTGGATCAGGATGAGAGTTTTTCCAGAGGCTTCCACTTAATATT
GAAGAGGCTAAAGACCGTCTCCGCATTCTGATGCTTCGCAACACCCAAGGTCTCTCTTG
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CTTCTTACAACCAGAGACAAGAGTGTACAGATTGAGTAATGGTCTAAATATGTAGTC
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CCTAATATTGTACAACCTGGGTCTCTGTGAGCCGAAACTTCAGAAGTTTATCAGCAAGCT

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AAGCTGCAGGCCAAGCAGGAGGTCGATAATGGAATGCTTTACCTGGAATGGATAAACAAA
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TCTGCTGACAAGACTGCAAGATCTGGAGTTTTGATCTCCTTTTGGCACTTCATGAATTG
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CACGTGTCCCCTGACTTCAAACATATGTGACTGTGGATAATCTTGGTATTTTATATATT
TTACAGACTTTAGAATAA
    
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- Restriction Sites:** Please inquire
- ACCN:** NM_181868
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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:	<ol style="list-style-type: none">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:	<u>NM_181868.1, NP_863658.1</u>
RefSeq Size:	7075 bp
RefSeq ORF:	3618 bp
Locus ID:	317
UniProt ID:	<u>O14727</u>
Cytogenetics:	12q23.1
Protein Families:	Druggable Genome
Protein Pathways:	Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Apoptosis, Huntington's disease, p53 signaling pathway, Parkinson's disease, Small cell lung cancer
Gene Summary:	<p>This gene encodes a cytoplasmic protein that initiates apoptosis. This protein contains several copies of the WD-40 domain, a caspase recruitment domain (CARD), and an ATPase domain (NB-ARC). Upon binding cytochrome c and dATP, this protein forms an oligomeric apoptosome. The apoptosome binds and cleaves caspase 9 preproprotein, releasing its mature, activated form. Activated caspase 9 stimulates the subsequent caspase cascade that commits the cell to apoptosis. Alternative splicing results in several transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (4), also known as Apaf-1M, lacks an in-frame exon in the coding region, compared to variant 3. Variant 4 encodes isoform d, which is shorter than isoform c.</p>