

Product datasheet for RC213428

APAF1 (NM_013229) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	APAF1 (NM_013229) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	APAF1
Synonyms:	APAF-1; CED4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC213428 representing NM_013229 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATGCAAAAGCTCGAAATTGTTTGCTTCAACATAGAGAAGCTCTGGAAAAGGACATCAAGACATCCT
ACATCATGGATCACATGATTAGTGATGGATTTTAAACAATATCAGAAGAGGAAAAAGTAAGAAATGAGCC
CACTCAACAGCAAAGAGCAGCTATGCTGATTAATGATACTTAAAAAGATAATGATTCCTACGTATCA
TTCTACAATGCTCTACTACATGAAGGATATAAAGATCTTGCTGCCCTTCCATGATGGCATTCTGTG
TCTCTTCTCCAGTGTAAGGACAGTCTGTGTGAAGGTGGAGTACCACAGAGGCCAGTTGTTTTGTGAC
AAGGAAGAAGCTGGTGAATGCAATTCAGCAGAAGCTCTCAAATGAAAGGTGAACCAGGATGGGTCAAC
ATACATGGAATGGCAGGCTGTGGGAAGTCTGTATTAGCTGCAGAAGCTGTAGAGATCATTCCCTTTTAG
AAGTTGTTTCCAGGGGAGTGCAATGGGTTTCAGTTGGGAAACAAGACAAATCTGGGCTTCTGATGAA
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GAGGCTAAAGACCGTCTCCGATTTCTGATGCTTCGCAACACCCAAGGTCTCTTTGATCTTGGATGATG
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TGTTACAGATTCAGTAATGGGTCTAAAATGTAGTCCCTGTGGAGAGTCCCTTAGGAAAGGAAAAAGGA
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GAGGCTCTAGATGAAGCCATGTCTATAAGTGTGAAATGCTCAGAGAAGACATCAAAGATTATTACACAG
ATCTTTCCATCCTTCAAGAGCAGTTAAGGTGCCTACAAAGGTGTTATGTATTCTCTGGGACATGGAAAC
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GCTTTAATGTTTTCCCTGGATTGGATTAAGCAAAAACAGAACTGTAGGCCCTGCTCATCTGATTCATG
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A

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC213428 representing NM_013229
 Red=Cloning site Green=Tags(s)

MDAKARNCLLQHREALEKDIKTSYIMDHMISDGFLTISEEEKVRNEPTQQQRAAMLIKMILKKDNDYSVVS
 FYNALLHEGYKDLAALLHDGIPVVSSSSVRTLCEGGVQRPVVFVTRKKLVNAIQQKLSLKGEPGWWT
 IHGMAGCGKSVLAAEAVRDHSLLEGCFPGGVHWSVVGKQDKSGLLMLQLNLCRDLQDESFQRLPLNIE
 EAKDRLRILMLRKHPRSLILDDVWDSWVLFKAFDSQCQILLTTRDKSVTDSVMGPKYVVPVVESSLGKEG
 LEILSLFVNMKKADLPEQAHSIIKECKGSPLVSLIGALLRDFPNRWEYLLKQLQNKQFKRIRKSSSYDY
 EALDEAMSISVEMLREDIKDYITDLSILQKDVKVPKVLKILWDMETEEVEDILQEFVNKSLLFCDRNGK
 SFRYYLHDLQVDFLTEKNCSQLQDLHKKIITQFQRYHQPHLSPDQEDCMYWNFLAYHMASAKMHKELC
 ALMFLDWIKAKTELVGPAHLIHEFVEYRHILDEKDCAVSENFQEFSLNGHLLGRQPPFNIVQLGLCEP
 ETSEVYQAKLQAKQEVNMGMLYLEWINKKNITNL SRLVVRPHTDAVYHACFSEGDQRIASCGADKTLQV
 FKAETGEKLEIKAHEDVLCFAFSTDDRFIATCSVDKVKIWNSTGELVHTYDEHSEQVNCCHFVNSS
 HHLLLATGSSDFLKLWDLNQKECRNTMFGHTNSVNHCRFSPDDKLLASCSADGTLKLWDATSANERKSI
 NVKQFFLNLEDPQEDMEIVKCCSWSADGARIMVAAKNKIFLFDIHTSGLLGEIHTGHHSTIQYCDFSPQ
 NHLAVVALSQYCVELWNTDSRSKVADCRGHL SWVHGVMFSPDGSSFLTSSDDQTI RLVWTKKVKNSAVM
 LKQEVVDFQENEVAVDHIRRLQLINGRTGQIDYL TEAQVSCCLSPHLQYIAFGDENGAI EILELV
 NNRIQSRFQHKKTWHIQTFADEKTLISSDDAEIQVWVWQLDKCI FLRGHQETVKDFRLLKNSRLLSW
 SFDGTVKVWNIITGNKEKDFVCHQGTVLSCDISHDATKFSSTADKTAKIWSFDLLLPLHELGRHNGCVR
 CSAFSDVSTLLATGDDNGEIRIWNVSNGELLHL CAPLSEEGAATHGGWVTDLCFSPDGKMLISAGGYIKW
 WNVVTGESSQTFYNTGNTLKKIHSVDPFKTYVTVDNLGILYILQTLE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_013229

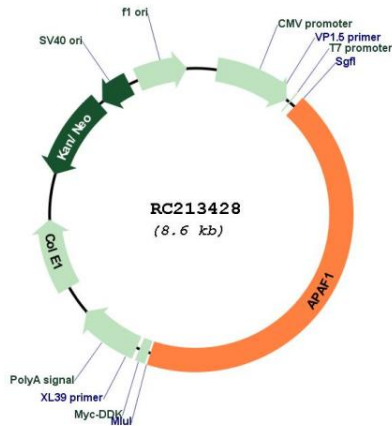
ORF Size: 3711 bp

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:	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:	<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:	NM_013229.3
RefSeq Size:	7171 bp
RefSeq ORF:	3714 bp
Locus ID:	317
UniProt ID:	O14727
Cytogenetics:	12q23.1
Domains:	CARD, WD40, NB-ARC
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
MW:	140.6 kDa

Gene Summary:

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]

Product images:



Circular map for RC213428