

Product datasheet for **RG213375**

Caspase 9 (CASP9) (NM_032996) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase 9 (CASP9) (NM_032996) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Caspase 9
Synonyms:	APAF-3; APAF3; ICE-LAP6; MCH6; PPP1R56
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG213375 representing NM_032996 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGCTCGGCCTCGGGCTCCGCAGGGGGCACCCGGCAGTGTCAACTGTTAGCCACGCAGATGCCGATT
GCTTTGTGTGTCTTCTGAGCCATGGCGAAGGCAATCACATTTATGCATATGATGCTAAAATCGAAAT
TCAGACATTAAGTGGCTTGTCAAAGGAGACAAGTGTACAGCCTGGTTGGAAAACCAAGATTTATC
ATTCAGGCATGTCGGGAAACCAGCACGATGTCCAGTCATTCTTTGGATGTAGTAGATAATCAGACAG
AGAAGTTGGACCAACATAACTGAGGTGGATGCAGCCTCCGTTTACACGCTGCCTGCTGGAGCTGACTT
CCTCATGTGTTACTCTGTTGCAGAAGGATATTATTCTACCGGAAACTGTGAACGGCTCATGGTACATT
CAAGATTTGTGTGAGATGTTGGGAAAATATGGCTCCTCCTTAGAGTTCACAGAACTCCTCACACTGGTGA
ACAGGAAAGTTTCTCAGCGCCGAGTGGACTTTTGCAAAGACCCAAGTGAATTGGAAAGAAGCAGGTTCC
CTGTTTTCCTCAATGCTAACTAAAAGCTGCATTTCTTTCCAAAATCTAAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:	>RG213375 representing NM_032996 Red=Cloning site Green=Tags(s)
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MSSASGLRRGHPAVSTVSHADADCFVCFVLSHGEGNHIYAYDAKIEIQTLTGLFKGDKCHSLVGPKPKIFI
IQACRGNQHDVPIPLDVVDNQTEKLDNTITEVDAASVYTL PAGADFLMCYSVAEGYSHRETVNGSWYI
QDLCEMLGKYGSSLEFTELLTLVNRKVSQRVDFCKDPSAIGKKQVPCFASMLTKKLHFFPKSN

TRTRPLE - GFP Tag - V

Restriction Sites:	Sgfl-MluI
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Cloning Scheme:


ACCN: NM_032996

ORF Size: 612 bp

OTI Disclaimer: 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:

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_032996.1](#), [NP_127463.1](#)

RefSeq Size: 1584 bp

RefSeq ORF: 1002 bp

Locus ID: 842

UniProt ID: [P55211](#)

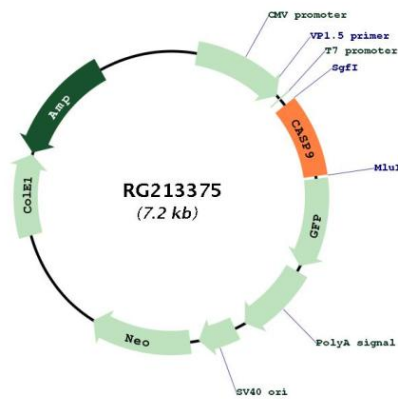
Cytogenetics: 1p36.21

Protein Families: Druggable Genome, Protease, Stem cell - Pluripotency

Protein Pathways: Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Apoptosis, Colorectal cancer, Endometrial cancer, Huntington's disease, Non-small cell lung cancer, p53 signaling pathway, Pancreatic cancer, Parkinson's disease, Pathways in cancer, Prostate cancer, Small cell lung cancer, VEGF signaling pathway, Viral myocarditis

Gene Summary: This gene encodes a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to produce two subunits, large and small, that dimerize to form the active enzyme. This protein can undergo autoproteolytic processing and activation by the apoptosome, a protein complex of cytochrome c and the apoptotic peptidase activating factor 1; this step is thought to be one of the earliest in the caspase activation cascade. This protein is thought to play a central role in apoptosis and to be a tumor suppressor. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2013]

Product images:



Circular map for RG213375