

Product datasheet for SC305531

Caspase 9 (CASP9) (NM_032996) Human Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | Caspase 9 (CASP9) (NM_032996) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | Caspase 9 |
| Synonyms: | APAF-3; APAF3; ICE-LAP6; MCH6; PPP1R56 |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL5</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| Fully Sequenced ORF: | <p>>OriGene sequence for NM_032996 edited</p> <p>CTGGCTGCGCGTTTGGCTGCAATGAGCTCGGCCTCGGGGCTCCGACGGGGGCACCCGGCA GTGTCAACTGTTAGCCACGCAGATGCCGATTGCTTTGTGTGTGCTTCTGAGCCATGGC GAAGGCAATCACATTTATGCATATGATGCTAAAAATCGAAATTCAGACATTAAGTGCTTG TTCAAAGGAGACAAAGTGTACAGCCTGGTTGAAAAACCAAGATATTTATCATTACAGGCA TGTCGGGGAAACAGCACGATGTGCCAGTCATTCTTTGGATGTAGTAGATAATCAGACA GAGAAGTTGGACACCAACATAACTGAGGTGGATGCAGCCTCCGTTTACACGCTGCCTGCT GGAGCTGACTTCCTCATGTGTTACTCTGTTGCAGAAGGATATTATTCTCACCGGGAAACT GTGAACGGCTCATGGTACATTCAAGATTTGTGTGAGATGTTGGGAAAATATGGCTCCTCC TTAGAGTTCACAGAACTCCTCACACTGGTGAACAGGAAAGTTTCTCAGCGCCGAGTGGAC TTTTGCAAAGACCAAGTCAATTGGAAAGAAGCAGGTTCCCTGTTTTGCCTCAATGCTA ACTAAAAAGCTGCATTTCTTTCCAAATCTAATTAATTAATAGAGGCTATCTAATTTTAC ACTCTGTATTGAAATGGCTTTCTCAGCCAGGCGTGGTTACTCACACCTGTAATCCCAGC ACTTTGGGAGTCCAAGGTGGGCGGATCACCTGAGGTGCGGAGTTTCGAGACCAGCCTGACC AACATGGAGAAGCCCCGTCTCTACTAAAAATGCAAAAAAAATTTAGCTAGGCATGGCGG CGCATGCCTGCAATCCCAGCTACTTGAAGGCTGAGGCAGGAGAATCACTTGAACCCAGG AGGTGGAGGCTGCGGTGAGCCGAGATTGCGCCATTGCACTCCAGCCTGGGCAACGAGTGA AACTCCGTCTCAAAAAAAGAAAATGTCTTTCTCTTTTATATAAATATCGTTAGGG TGAAGCATTATGGTCCAATGATTCAAATGTTTTAAAGTTTAATGCCTAGCAGAGAAGAGA ACTGCCTTAAAAAAAAAAAAAAAAAAAA</p> |
| Restriction Sites: | Please inquire |
| ACCN: | NM_032996 |
| Insert Size: | 1100 bp |


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| 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_032996.1</u> , <u>NP_127463.1</u> |
| RefSeq Size: | 1584 bp |
| RefSeq ORF: | 801 bp |
| Locus ID: | 842 |
| UniProt ID: | <u>P55211</u> |
| 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]

Transcript Variant: This variant (3) differs in the 5' UTR, lacks a portion of the 5' coding region, and initiates translation at a downstream start codon, compared to variant alpha. The encoded isoform (3) has a shorter N-terminus, compared to isoform alpha. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.