

Product datasheet for **SC109027**

Caspase-7 (CASP7) (NM_033340) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase-7 (CASP7) (NM_033340) Human Untagged Clone
Tag:	Tag Free
Symbol:	Caspase-7
Synonyms:	CASP-7; CMH-1; ICE-LAP3; LICE2; MCH3
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_033340, the custom clone sequence may differ by one or more nucleotides

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ATGGCAGATGATCAGGGCTGTATTGAAGAGCAGGGGGTTGAGGATTCAGCAAATGAAGATTCAGTGGATG
CTAAGCCAGACCGGTCTCGTTTGTACCGTCCCTCTTCAGTAAGAAGAAGAAAAATGTCACCATGCGATC
CATCAAGACCACCCGGGACCGAGTGCCTACATATCAGTACAACATGAATTTTGAAAAGCTGGGCAAATGC
ATCATAATAAACAACAAGAACTTTGATAAAGTGACAGGTATGGGCGTTCGAAACGGAACAGACAAAGATG
CCGAGGCGCTCTCAAGTGCTTCCGAAGCCTGGGTTTTGACGTGATTGTCTATAATGACTGCTCTTGTGC
CAAGATGCAAGATCTGCTTAAAAAGCTTCTGAAGAGGACCATACAAATGCCGCCTGCTTCGCTGCATC
CTCTTAAGCCATGGAGAAGAAAATATGGAATCTTGCTCTGTACCCAGGCTGGAGTGCAGCGCGGTGATC
TCGGAAGACTGCAACCTCCACCTCCAGGCTTGCCGAGGGACCGAGCTTGATGATGGCATCCAGGCCGAC
TCGGGGCCCATCAATGACACAGATGCTAATCCTCGATACAAGATCCCAGTGAAGCTGACTTCTCTTCG
CCTATTCCACGGTTCCAGGCTATTACTCGTGGAGGAGCCAGGAAGAGGCTCCTGGTTTTGTGAAGCCCT
CTGCTCCATCCTGGAGGAGCACGGAAAAGACCTGGAAATCATGCAGATCCTCACCAGGTTGA
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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_033340 unedited GGATTTTGTAAATACGACTCACTATAGGGNCGGCCGCAAATTCGGCACGAGGGCAAGCT GGGCTGCTGGGTGGTACTTCTTCAAAGCTGAGGGAGCGTCCTACGCCACGCGCGCAG GAGGGCGCCCCCGCAAAGCAACGTCTAGGAGACCACAGTGGATGCCACAGCGGGCCGA AGCGGATCAGCCTTGTGGGATGGCAGATGAGCAGGGCTGTATTGAAGAGCAGGGGTTGA GGATTACGAAATGAAGATTCAGTGGATGCTAAGCCAGACCGGTCTCGTTTGTACCGTC CCTCTTCAGTAAGAAGAAGAAAAATGTCACCATGCGATCCATCAAGACCACCGGGACCG AGTGCCTACATACAGTACAACATGAATTTTAAAAGCTGGGCAAATGCATCATAATAAAA CAACAAGAACTTTGATAAAGTGACAGGTATGGGCGTTCGAAACGGAACAGACAAAGATGC CGAGGCGCTCTTCAAGTCTTCCGAAGCCTGGGTTTTGACGTGATTGTCTATAATGACTG CTCTTGTGCCAAGATGCAAGATCTGCTTAAAAAGCTTCTGAAGAGGACCATACAAATGC CGCCTGCTTCGCCTGCATCCTCTTAAGCCATGGAGAAGAAAAATGTAATTTATGGGAAAGA TGGTGTACACCAATAAAGGATTTGACAGCCACTTTANGGGGATAGATGCAAAACCTT TTTAGAGAAACCCAAACTCTTCTTATTANGCTTCCGAGGACCGAGCTTGTATGATGG CATCCAGGCCGACTCGGGCCATCATGACACGATGCTAATCCTCGATACAAGATCCAGTG GAAGCTGACTTNTCTGCTGCTATTNACGNNCCAGCTATTACTCGTGNAGAGCCCN AGAAAGAGCTNCTGGTNGTGCAAGCCTCTGCTTCTNCTGNAGAGCCNGNAAAGACTGNA ATATGCAGACCTNACCAGGTGATGAACAGAGTGCAGCACTTTGAGCT</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_033340 unedited GTCCATCTATGNNACCGCGCCGAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTTTTTT TTTTTTTTTTTTTTTTTTTTTAAACAACCCGTGTTAATCAATAAATATGAACCTTTGTT TTTTAACCGTTACTATTAGGCAGAAAAAACAGTCTTTTTCAAGAATCAAAGATAA CCCCCTTTGAAAACAAAGTGCCAAAAATCTTGGCATAAACTCTTCTCACTTATAGAA CTAAAAGTAACAGATTTTACTCAAATAAGGGTTGGAATAATCTAAAAGTTCCAGATT TTTTTAAAGCTATAACAGATTTTGACATAAAGCCAAAACAGATTGGTTTACACATACC TAGACTATCTGACAACCAATGAATAAATGATTGAATGGGTAAATGGTGAGCCTTAGGG ATTACTTATGTTACATTATGGGCCAGGCTTACATCCATTTCTTGGTCTTCTCCTGCCTC ACTGGCCCTTGCTCTTCCAAGGGCTTGGGGAGGGGGCTTCCAAATAGGCCTGGGCAGTA AGGGGCTGGTGGAAAATGTGAGGGCAGGATAGGTGAGACCAAGGGATTCTTTATCTGGC TCAACTACTCCATCTCAGTCAGTGGTTTTGTTCTTGTGATGGCTCCATTTCCACAATC CATTGGTGGTCCCTAACTCCCACTAGGCAGCCCCACCATGGTTCCAGCTCCTCTGGATG ATCCCACTACTGGACACAGGAAACCAAACCTCTTCCATTATCCTCATAGCCCTGGGGTG TGGTAACAGCTTCTGCTGGTTGGCCTCCCTTTATCATCTATGAAGTCAATTTCTGTAT TAAACTCCCTCTGGTGAACCCCTAAATGGTTTCTGTTTTCANACTGGATCCCTGATGA TACATTTCAGAATCC</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_033340
Insert Size:	2500 bp
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).
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_033340.2](#), [NP_203126.1](#)

RefSeq Size: 2433 bp

RefSeq ORF: 762 bp

Locus ID: 840

UniProt ID: [P55210](#)

Cytogenetics: 10q25.3

Domains: Peptidase_C14

Protein Families: Druggable Genome, Protease

Protein Pathways: Alzheimer's disease, Apoptosis

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. The precursor of the encoded protein is cleaved by caspase 3 and 10, is activated upon cell death stimuli and induces apoptosis. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, May 2012]

Transcript Variant: This variant (b, also known as beta) has multiple differences in the 5' UTR and coding region, and initiates translation at a downstream in-frame start codon, compared to variant d. The encoded isoform (beta) is shorter and has a distinct C-terminus, compared to isoform delta.