

Product datasheet for **SC125549**

Caspase 8 (CASP8) (NM_033355) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase 8 (CASP8) (NM_033355) Human Untagged Clone
Tag:	Tag Free
Symbol:	Caspase 8
Synonyms:	ALPS2B; CAP4; Casp-8; FLICE; MACH; MCH5
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_033355, the custom clone sequence may differ by one or more nucleotides

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ATGGACTTCAGCAGAAATCTTTATGATATTGGGGAACAACCTGGACAGTGAAGATCTGGCCTCCCTCAAGT
TCCTGAGCTGGACTACATTCCGCAAAGGAAGCAAGAACCCATCAAGGATGCCTTGATGTTATTCCAGAG
ACTCCAGGAAAAGAGAATGTTGGAGGAAAGCAATCTGTCTTCTCCTGAAGGAGCTGCTCTCCGAATTAAT
AGACTGGATTTGCTGATTACCTACCTAAACACTAGAAAGGAGGAGATGGAAAGGGAACCTCAGACACCAG
GCAGGGCTCAAATTTCTGCCTACAGGGTCATGCTCTATCAGATTTCAGAAGAAGTGAGCAGATCAGAATT
GAGGTCTTTAAGTTTCTTTGCAAGAGGAAATCTCCAAATGCAAACCTGGATGATGACATGAACCTGCTG
GATATTTTCATAGAGATGGAGAAGAGGGTCATCCTGGGAGAAGGAAAGTTGGACATCCTGAAAAGAGTCT
GTGCCCAAATCAACAAGAGCCTGCTGAAGATAATCAACGACTATGAAGAATTCAGCAAAGAGAGAAGCAG
CAGCCTTGAAAGGAAGTCCTGATGAATTTCAAATGGGGAGGAGTTGTGTGGGGTAATGACAATCTCGGAC
TCTCCAAGAGAACAGGATAGTGAATCACAGACTTTGGACAAAAGTTTACCAAATGAAAAGCAAACCTCGGG
GATACTGTCTGATCATCAACAATCACAATTTTGCAAAAGCACGGGAGAAAGTGCCCAAACCTCACAGCAT
TAGGGACAGGAATGGAACACACTTGGATGCAGGGGCTTTGACCACGACCTTTGAAGAGCTTCATTTTGAG
ATCAAGCCCCACGATGACTGCACAGTAGAGCAAATCTATGAGATTTTGAAAATCTACCAACTCATGGACC
ACAGTAACATGGACTGCTTCATCTGCTGTATCCTCTCCCATGGAGACAAGGCATCATCTATGGCACTGA
TGGACAGGAGGCCCATCTATGAGCTGACATCTCAGTTCACTGGTTTGAAGTCCCTTCCCTTGGCTGGA
AAACCCAAAGTGTTTTTTATTCAGGCTTGTGAGGGGATAACTACCAGAAAGGTATACCTGTTGAGACTG
ATTCAGAGGAGCAACCCTATTTAGAAAATGGATTTATCATCACCTCAAACGAGATATATCCCGGATGAGGC
TGACTTTCTGCTGGGATGGCCACTGTGAATAACTGTGTTTCTACCGAAACCCTGCAGAGGGAACCTGG
TACATCCAGTCACTTTGCCAGAGCCTGAGAGAGCGATGTCCTCGAGGCGATGATATTCTCACCATCTGA
CTGAAGTGAACATGAAGTAAGCAACAAGGATGACAAGAAAAACATGGGGAAACAGATGCCTCAGCCTAC
TTTCACACTAAGAAAAAACTTGCTTCCCTTCTGATTGA
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_033355 unedited
 AGATTTGGAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCTGGTTGTTC
 GACTGAGCTTCTGCCTGCCTGTACCCCGCCAACAGCTTCAGAAGAAGGTGACTGGTGGC
 TGCCTGAGGAATACCAGTGGGCAAGAGAATTAGCATTTCTGGAGCATCTGCTGTCTGAGC
 AGCCCCGGGTGCGTCCACTTTCTGGGCACGTGAGGTTGGGCCTTGGCCGCTGAGCCCT
 TGAGTTGGTCACTTGAACCTTGGGAATATTGAGATTATATTCTCCTGCCTTTTAAAAAGA
 TGGACTTCAGCAGAAATCTTTATGATATTGGGGAACAACCTGGACAGTGAAGATCTGGCCT
 CCCTCAAGTTCCTGAGCCTGGACTACATTCCGCAAGGAAGCAAGAACCCATCAAGGATG
 CCTTGATGTTATTCCAGAGACTCCAGGAAAAGAGAATGTTGGAGGAAAGCAATCTGTCT
 TCCTGAAGGAGCTGCTCTCCGAATTAATAGACTGGATTTGCTGATTACCTACCTAAACA
 CTAGAAAGGAGGAGATGGAAAGGGAACCTCAGACACCAGGCAGGGCTCANATTTCTGCCT
 ACAGGGTCATGCTCTATCAGATTTCAGAAGAAGTGAGCAGATCAGAAATGAGGTCCTTTA
 NGTTTCTTTTGAAGAGGAAATCTCCAAATGCAAACCTGGATGATGACATGAACCTGCCT
 GGAATTTTTCATAGAGATTGAGAAAAAGGTCATTCTGGGAAAAAGAAGTGAACAACT
 TAGAAAGATCTGCGCCCAATCAACAGAAGCCGGTGAATATACCCCCCTTAAAATTTCCC
 AGGGGGGGGATTGGTGGGAGCAACCCGACTTCCCAAACAGGAAGTATCCAACCTGTGAG
 GTTCA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_033355 unedited
 GGAGTGCACCTCCAGGCCAGGAGAGGCACTGGGGAGGGGTACAGGGATGCCACCCGGGA
 TCTGTTCCAGGAAACAGCTATGACCGCGCCGCAATCTAGAGTCGAGTTTTTTTTTTGGGT
 TTTTTTAAAGTCAAATTATTTTTATTCTATTAATAAATGTTTTTGAATAAAGATACTTA
 AATTTTAAAGATAACTTAATTCCTAATGATTTAAATAATCCAAGCAGAGATGAAAGAGC
 AAATGCAAATGCATAAAAAGACCCAGAGCATTGTTAGCAAAAAGCAAATATAGTTAGCC
 AAGCATATATATATCATAAAAAGCAATAAGAAGGCATAAAGCAAGTTTGGGGAGAGCTTAT
 TAAAACTTGAAAAATCATTGAAATTTTAAAAGTTTTCAAACAAATTTGTTTTATTA
 AAAAAAATTTTTTTTGGAGACGGGTCTCGTTCTGTACCCAAAGCTTGAAGTGCAGCGG
 TGTGAACATGGCTCACCGCAGCCTTGACCTCTGGGTTCAAGCAATCCTCCCACCTCAAC
 CTCCCAAAGTGTGGGACCATAGACATGAGCCACCACGTTGGCTACTTTCTAATTTTTT
 TAATGTGGTAGTGTGGAATTTAGCTTTGAAAGAGAATTAAGTTAATAGAATATTAACAG
 TGGGCTTATAGTTGATAGATAACAATCTGAATCATAAGCCCTCTATATTCATAGTGGAT
 TTTGTACGTGTCTGGTATTTATTGCCACCAGCTAAAAAATCCTCAAGAGCCTTAGCTTA
 ANAAAAAGGAAACGGGGTATTGTGGTAAATCCCATTAACCTTGCTTATAACAGGCAAAC
 ACTTATTAGTGAATCTTNAATATAATAAACTAGGTATTCAAAAAGCTCTGCCGGCGTGC
 TTCG

Restriction Sites:

NotI-NotI

ACCN:

NM_033355

Insert Size:

4400 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_033355.2](#), [NP_203519.1](#)

RefSeq Size: 2908 bp

RefSeq ORF: 1440 bp

Locus ID: 841

UniProt ID: [Q14790](#)

Cytogenetics: 2q33.1

Domains: DED, CASc, ICE_p10, ICE_p20

Protein Families: Druggable Genome, Protease

Protein Pathways: Alzheimer's disease, Apoptosis, Huntington's disease, NOD-like receptor signaling pathway, p53 signaling pathway, Pathways in cancer, RIG-I-like receptor signaling pathway, Toll-like receptor 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 composed of a prodomain, a large protease subunit, and a small protease subunit. Activation of caspases requires proteolytic processing at conserved internal aspartic residues to generate a heterodimeric enzyme consisting of the large and small subunits. This protein is involved in the programmed cell death induced by Fas and various apoptotic stimuli. The N-terminal FADD-like death effector domain of this protein suggests that it may interact with Fas-interacting protein FADD. This protein was detected in the insoluble fraction of the affected brain region from Huntington disease patients but not in those from normal controls, which implicated the role in neurodegenerative diseases. Many alternatively spliced transcript variants encoding different isoforms have been described, although not all variants have had their full-length sequences determined. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (B) includes different segments in its 5' UTR and lacks a 5' coding region segment, compared to variant G. This results in translation at a downstream start codon, and the encoded protein (isoform B) has a shorter N-terminus when it is compared to isoform G. CCDS Note: This CCDS representation is based on AF422928.1 and U58143.1, and on data in PMID:11917123. This 479 aa isoform is also supported by homologous proteins, including pig NP_001026949.1, cow NP_001039435.1, mouse NP_033942.1, rat NP_071613.1 and chicken NP_989923.1. In addition, macaque AB172864.1 supports the full-length splice pattern.