

Product datasheet for SC101958

Caspase 3 (CASP3) (NM_032991) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase 3 (CASP3) (NM_032991) Human Untagged Clone
Tag:	Tag Free
Symbol:	Caspase 3
Synonyms:	CPP32; CPP32B; SCA-1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC101958 sequence for NM_032991 edited (data generated by NextGen Sequencing)

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ATGGAGAACACTGAAAACACTCAGTGGATTCAAATCCATTAATAATTTGGAACCAAAGATC
ATACATGGAAGCGAATCAATGGACTCTGGAATATCCCTGGACAACAGTTATAAAATGGAT
TATCCTGAGATGGGTTTATGTATAATAATTAATAATAAGAATTTTCATAAAAGCACTGGA
ATGACATCTCGGTCTGGTACAGATGTCGATGCAGCAAACCTCAGGGAAACATTCAGAAAC
TTGAAATATGAAGTCAGGAATAAAAAATGATCTTACACGTGAAGAAATTGTGGAATTGATG
CGTGATGTTTCTAAAGAAGATCACAGCAAAGGAGCAGTTTTGTTGTGTGCTTCTGAGC
CATGGTGAAGAAGGAATAATTTTGGAAACAAATGGACCTGTTGACCTGAAAAAATAACA
AACTTTTTCAGAGGGGATCGTTGTAGAAGTCTAACTGGAAAACCCAAACTTTTCATTATT
CAGGCCTGCCGTGGTACAGAAGTGGACTGTGGCATTGAGACAGACAGTGGTGTGATGAT
GACATGGCGTGTCAAAAATACCAGTGGAGGCCGACTTCTGTATGCATACTCCACAGCA
CCTGGTTATTATTCTTGCGAAAATTCAAAGGATGGCTCCTGGTTCATCCAGTCGCTTTGT
GCCATGCTGAAACAGTATGCCGACAAGCTTGAATTTATGCACATCTTACCCGGGTTAAC
CGAAAGGTGGCAACAGAAATTTGAGTCCTTTTCTTTGACGCTACTTTTCATGCAAAGAAA
CAGATTCATGTATTGTTTCCATGCTCACAAAAGAACTCTATTTTATCACTAA

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Clone variation with respect to NM_032991.2



[View online »](#)

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_032991 unedited
TTCAGCATTTTTGTAATACGACTCACTTATAGGGCGGCCGGAATTCGCACGAGGGCGGTT
GTGGAAGAGTTTTCGTGAGTGCTCGCAGCTCATACCTGTGGCTGTGTATCCGTGGCCACAG
CTGTTGGCGTCGCCTTGAAATCCCAGGCCGTGAGGAGTTAGCGAGCCCTGCTCACACTC
GGCGCTCTGGTTTTCCGTTGGGTGCCCCGCACCTGCCTCTTCCCCATTCTCATTAAATA
AAGGTATCCATGGAGAACACTGAAAACACTCAGTGGATTCAAATCCATTAATAAATTTGGAA
CCAAAGATCATAACATGGAAGCGAATCAATGGACTCTGGAATATCCCTGGACAACAGTTAT
AAAATGGATTATCCTGAGATGGGTTTATGTATAATAATTAATAAAGAATTTTCATAAA
AGCACTGGAATGACATCTCGGTCTGGTACAGATGTCGATGCAGCAAACCTCAGGGAAACA
TTCAGAAACTTGAAATATGAAGTCAGGAATAAAAATGATCTTACACGTGAAGAAATTGTG
GAATTGATGCGTGATGTTCTAAAGAAGATCACAGCAAAGGAGCAGTTTTGTTGTGTG
CTTCTGAGCCATGGTGAAGAAGGAATAATTTTTGGAACAAATGGACCTGTTGACCTGAAA
AAAATAACAACTTTTTAGAGGGGATCGTTGTAGAAGCTAACTGGAAAACCCAACTT
TTCATTATTCAGGCTGCCGTGGTACAGAAGTGGACTGTGGCATTGAGACAGACAGTGGT
GTTGATGATGACATGGCGTGTCAAAATACCAGTGGNAGCCGACTTCTGTATGCATACTC
ACAGCACTGGTTATTATCTNNGCGAATCAAGGAGGCTCCTGGNTCTCCAGTCGCTTGTG
CCTGCTGAAACATATGCCGACAGCTTGAATTT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_032991 unedited
GGCCGCAATCTAGNATCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAGTTTGAAT
GTATATTTTGAATAAAAATGGGAAAATAACAAATTTGTACAAAATTGTCACATTAGAAA
CACACTTAAGATACCATTACATGCTATGTGTATTTACAAAAGTTACAGGTCTAGTAAGA
AAAAGAAACTGTCATTGACAAATGCGAGCTCATTTTTTTGAGCAACAAGAAATCTCCCGT
GAAATGTCATACTGACAGCCAGTGGACTTGGTGCAGTGACGGCTCCGCACCTGCTGAGG
CCTGGAGCCTGCCTCCCGGGCTGAGTGCTCAGCTCTGGCCTCCGCTGGATGCCGTCTAA
AGTCTATGTGCTCATAGGTCTTTTTCTTTTCCAGTAAACAGTATAAAAACATTACTATTTTC
CTTTGATTGAAAACCTTCAACAGAAAATAACATACTTAAGAATTTTGTACAAAAGAGTACT
ATGATTTTTATTGCCTCACACCTTTAGAACATTTCCACTTCAAGTTTCTGATTTGCT
TCATTTCTTACTTGGCGATGGCGCCCTGGCAGCATCATCCACACATACCAGTGGCAGTATG
GAGAAAATGGGCTGTAGGCCCTTCTGCGTGGTCCATGGCTCTGCCTTTCATGGAACAGGCT
GAGTCATGTCTCTGCTCAAGCTCAAACCATCTACTCTCAAGTTACAGGCAGCTCAGCCCA
TTCATTTATTGCTTTCTTATATTCCACTGTTTATTATTTAAAGTGATTTTTCATATGTN
CCTATAGAAATTATTACATTACCTGGCTAATAATCACAGTTTGGGGTTTTTATATAATA
GCTCTTCAGAATATTGCTGGGTTATGAAGCTCACTGATATGCTAGGGACAATANAANATT
TATGCTGTAGATCAAGGCATGTACACCTCAGTAAACTCACCTTATGATGTAGTTACCTTA
AGCAGTATCTGCCACTTTT

Restriction Sites:

NotI-NotI

ACCN:

NM_032991

Insert Size:

2680 bp

OTI Disclaimer:	<p>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.</p> <p>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</p>
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_032991.2 , NP_116786.1
RefSeq Size:	2522 bp
RefSeq ORF:	834 bp
Locus ID:	836
UniProt ID:	P42574
Cytogenetics:	4q35.1
Domains:	CASc, ICE_p10, ICE_p20
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Protease
Protein Pathways:	Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Apoptosis, Colorectal cancer, Epithelial cell signaling in Helicobacter pylori infection, Huntington's disease, MAPK signaling pathway, Natural killer cell mediated cytotoxicity, p53 signaling pathway, Parkinson's disease, Pathways in cancer, Viral myocarditis

Gene Summary:

The protein encoded by this gene is a cysteine-aspartic acid protease that plays a central role in the execution-phase of cell apoptosis. The encoded protein cleaves and inactivates poly(ADP-ribose) polymerase while it cleaves and activates sterol regulatory element binding proteins as well as caspases 6, 7, and 9. This protein itself is processed by caspases 8, 9, and 10. It is the predominant caspase involved in the cleavage of amyloid-beta 4A precursor protein, which is associated with neuronal death in Alzheimer's disease. [provided by RefSeq, Aug 2017]

Transcript Variant: This variant (2, also known as beta) differs in the 5' UTR compared to variant 1. Variants 1, 2, and 3 all encode the same isoform (a).