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Product datasheet for SC310462

Caspase 1 (CASP1) (NM_001223) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase 1 (CASP1) (NM_001223) Human Untagged Clone
Tag:	Tag Free
Symbol:	Caspase 1
Synonyms:	ICE; IL1BC; P45
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001223, the custom clone sequence may differ by one or more nucleotides

ATGGCCGACAAGGTCCTGAAGGAGAAGAGAAAGCTGTTTATCCGTTCCATGGGTGAAGGTACAATAAATG
GCTTACTGGATGAATTATTACAGACAAGGGTGCTGAACAAGGAAGAGATGGAGAAAGTAAAACGTGAAAA
TGCTACAGTTATGGATAAGACCCGAGCTTTGATTGACTCCGTTATTCCGAAAGGGGCACAGGCATGCCAA
ATTTGCATCACATACATTTGTGAAGAAGACAGTTACCTGGCAGGGACGCTGGGACTCTCAGCAGCTCCTC
AGGCAGTGCAGGACAACCCAGCTATGCCCACATCCTCAGGCTCAGAAGGGAATGTCAAGCTTTGCTCCCT
AGAAGAAGCTCAAAGGATATGGAAACAAAAGTCGGCAGAGATTTATCCAATAATGGACAAGTCAAGCCGC
ACACGTCTTGCTCTCATTATCTGCAATGAAGAATTTGACAGTATTCCTAGAAGAACTGGAGCTGAGGTTG
ACATCACAGGCATGACAATGCTGCTACAAAATCTGGGGTACAGCGTAGATGTGAAAAAAAATCTCACTGC
TTCGGACATGACTACAGAGCTGGAGGCATTTGCACACCGCCCAGAGCACAAGACCTCTGACAGCACGTTC
CTGGTGTTCATGTCTCATGGTATTCGGGAAGGCATTTGTGGGAAGAAACACTCTGAGCAAGTCCCAGATA
TACTACAACTCAATGCAATCTTTAACATGTTGAATACCAAGAACTGCCCAAGTTTGAAGGACAAACCGAA
GGTGATCATCATCCAGGCCTGCCGTGGTGACAGCCCTGGTGTGGTGTGGTTTAAAGATTCAGTAGGAGTT
TCTGGAAACCTATCTTTACCAACTACAGAAGAGTTTGAGGATGATGCTATTAAGAAAGCCCACATAGAGA
AGGATTTTATCGCTTTCTGCTCTTCCACACCAGATAATGTTTCTTGGAGACATCCCACAATGGGCTCTGT
TTTTATTGGAAGACTCATTGAACATATGCAAGAATATGCCTGTTCCTGTGATGTGGAGGAAATTTTCCGC
AAGGTTCGATTTTCATTTGAGCAGCCAGATGGTAGAGCGCAGATGCCCACCACTGAAAGAGTGACTTTGA
CAAGATGTTTCTACCTCTTCCCAGGACATTAA

Restriction Sites:	Please inquire
ACCN:	NM_001223

View online »

OTI Disclaimer:	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. 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 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:	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_001223.3, NP_001214.1
RefSeq Size:	1301 bp
RefSeq ORF:	1152 bp
Locus ID:	834
UniProt ID:	P29466
Cytogenetics:	11q22.3
Domains:	CARD, CASc, ICE_p10, ICE_p20
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Amyotrophic lateral sclerosis (ALS), Cytosolic DNA-sensing pathway, NOD-like receptor signaling pathway

Gene Summary:

This gene encodes a protein which is 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 2 subunits, large and small, that dimerize to form the active enzyme. This gene was identified by its ability to proteolytically cleave and activate the inactive precursor of interleukin-1, a cytokine involved in the processes such as inflammation, septic shock, and wound healing. This gene has been shown to induce cell apoptosis and may function in various developmental stages. Studies of a similar gene in mouse suggest a role in the pathogenesis of Huntington disease. Alternative splicing results in transcript variants encoding distinct isoforms. [provided by RefSeq, Mar 2012]
Transcript Variant: This variant (beta) lacks an in-frame exon in the coding region, compared to variant alpha. Variant beta encodes a protein lacking an internal segment, compared to isoform alpha.Variant beta and variant 7 encode the same protein. 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.