

Product datasheet for RC218982

Caspase 1 (CASP1) (NM_033294) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase 1 (CASP1) (NM_033294) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Caspase 1
Synonyms:	ICE; IL1BC; P45
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218982 representing NM_033294 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCGACAAGGTCCTGAAGGAGAAGAGAAAGCTGTTTATCCGTTCCATGGGTGAAGCTCCTCAGGCAG
TGCAGGACAACCCAGCTATGCCACATCCTCAGGCTCAGAAGGGAATGTCAAGCTTTGCTCCCTAGAAGA
AGCTCAAAGGATATGAAACAAAAGTCGGCAGAGATTTATCCAATAATGGACAAGTCAAGCCGCACACGT
CTTGCTCTCATTATCTGCAATGAAGAATTTGACAGTATTCTAGAAGAACTGGAGCTGAGGTTGACATCA
CAGGCATGACAAATGCTGTACAAAATCTGGGGTACAGCGTAGATGTGAAAAAAATCTCACTGCTTCGGA
CATGACTACAGAGCTGGAGGCATTTGCACACCGCCAGAGCACAAGACCTCTGACAGCACGTTCCCTGGTG
TTCATGTCTCATGGTATTCGGAAGGCATTTGTGGGAAGAAACACTCTGAGCAAGTCCCAGATATACTAC
AACTCAATGCAATCTTTAACATGTTGAATACCAAGAACTGCCAAGTTTGAAGGACAAACCGAAGGTGAT
CATCATCCAGGCCTGCCGTGGTGATAATGTTTCTGGAGACATCCCAATGGGCCTGTTTTTATTGGA
AGACTCATTGAACATATGCAAGAATATGCCTGTTCTGTGATGTGGAGGAAATTTCCGCAAGTTTCGAT
TTTCATTTGAGCAGCCAGATGGTAGAGCGCAGATGCCACCCTGAAAGAGTGACTTTGACAAGATGTTT
CTACCTTCCCAGGACAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC218982 representing NM_033294
 Red=Cloning site Green=Tags(s)

MADKVLKEKRKLFIRSMGEAPQAVQDNPMPTSSGSEGNVKLCSLEEAQRIWKQKSAEIYPIMDKSSRTR
 LALIICNEEFDSIPRRTGAEVDITGMTLLQNLGYSVDVKKNLTASDMTELEAFahrPEHKTSdstFLV
 FMSHGIREGICGKKHSEQVPDILQLNAIFNMLNTKNCPslKDKPKVIIIQACRGDNVSWRHPTMGsvFIG
 RLIEHMqEYACSDVEEiFRKvRfSFEQPDGRAQMPtTtERVTLTRCFyLFPgH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3816_a01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_033294

ORF Size: 789 bp

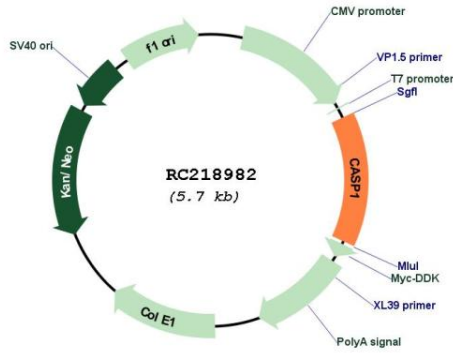
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

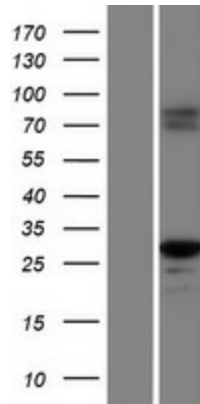
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_033294.3
RefSeq Size:	941 bp
RefSeq ORF:	792 bp
Locus ID:	834
UniProt ID:	P29466
Cytogenetics:	11q22.3
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Amyotrophic lateral sclerosis (ALS), Cytosolic DNA-sensing pathway, NOD-like receptor signaling pathway
MW:	29.6 kDa
Gene Summary:	<p>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]</p>

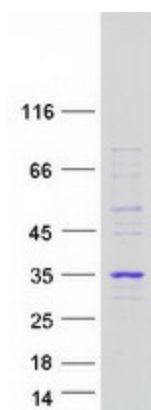
Product images:



Circular map for RC218982



Western blot validation of overexpression lysate (Cat# [LY409613]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218982 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CASP1 protein (Cat# [TP318982]). The protein was produced from HEK293T cells transfected with CASP1 cDNA clone (Cat# RC218982) using MegaTran 2.0 (Cat# [TT210002]).