

Product datasheet for RC217703

Caspase 4 (CASP4) (NM_001225) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase 4 (CASP4) (NM_001225) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Caspase 4
Synonyms:	ICE(rel)II; ICEREL-II; ICH-2; Mih1; Mih1/TX; TX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217703 representing NM_001225 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGAAGGCAACCACAGAAAAAGCCACTTAAGGTGTTGGAATCCCTGGCAAAGATTTCTCACTG
GTGTTTTGGATAACTTGGTGAACAAAATGTAAGTGAAGGAAAGAGGAAAAAAGAAATATTACGA
TGCTAAAAGTGAAGACAAAGTTCGGGTCATGGCAGACTCTATGCAAGAGAAGCAACGTATGGCAGGACAA
ATGCTTCTTCAAACCTTTTTAACATAGACCAAAATATCCCCCAATAAAAAAGCTCATCCGAATATGGAGG
CTGGACCACCTGAGTCAGGAGAATCTACAGATGCCCTCAAGCTTTGTCCCTCATGAAGAATTCCTGAGACT
ATGTAAAGAAAGAGCTGAAGAGATCTATCCAATAAAGGAGAGAAACAACCGCACACGCCTGGCTCTCATC
ATATGCAATACAGAGTTTGACCATCTGCCTCCGAGGAATGGAGCTGACTTTGACATCACAGGGATGAAGG
AGCTACTTGAGGGTCTGGACTATAGTGTAGATGTAGAAGAGAATCTGACAGCCAGGGATATGGAGTCAGC
GCTGAGGGCATTGCTACCAGACCAGAGCACAAGTCCCTGACAGCACAATTTGGTACTCATGTCTCAT
GGCATCCTGGAGGGAATCTGCGGAATGTGCATGATGAGAAAAACCAGATGTGCTGCTTTATGACACCA
TCTTCCAGATATTCAACAACCGCAACTGCCTCAGTCTGAAGGACAAACCAAGGTATCATTGTCCAGGC
CTGCAGAGGTGCAAACCTGGGGAAGTGGGTCAGAGACTCTCCAGCATCCTTGAAGTGGCCTCTTCA
CAGTCATCTGAGAACCTGGAGGAAGATGCTGTTTACAAGACCCAGTGGAGAAGGACTTCATTGCTTTCT
GCTCTTCAACGCCACACAACGTGCTGGAGAGACAGCACAATGGGCTCTATCTTCATCACACAACCTCAT
CACATGCTTCCAGAAATATTCTTGGTGTGCCACCTAGAGGAAGTATTTGGAAGGTACAGCAATCATT
GAAACTCCAAGGGCCAAAGCTCAAATGCCACCATAGAACGACTGTCCATGACAAGATATTTCTACCTCT
TTCCTGGCAAT

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC217703 representing NM_001225
Red=Cloning site Green=Tags(s)

MAEGNHRKKPLKVLVLESLGKDFLTGVLNLDVEQVNLNWKEEEKKKYDDAKTEDKVRVMADSMQEKQRMAGQ
 MLLQTFNIDQISPNKKAHPNMEAGPPESGESTDALKLCPHEEFLRLCKERAEEIYPIKERNRRLALI
 ICNTEFDHLPPRNGADFDTGMKELLEGLDYSVDVEENLTARDMESALRAFATRPEHKSSDSTFLVLMSh
 GILEGICGTVHDEKKPDVLLYDTIFQIFNNRNLSLKDKPKVIIVQACRGANRGELWVRDSPALEVASS
 QSSENLEEDAVYKTHVEKDFIAFCSSSTPHNVSWRDSTMGSIFITQLITCFQKYSWCCHLEEVFRKVQQS
 ETPRAKAQMPTIERLSMTRYFYLFPGN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6045_e07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_001225

ORF Size: 1131 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:

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001225.2](#)

RefSeq Size: 1319 bp

RefSeq ORF: 1134 bp

Locus ID: 837

UniProt ID: [P49662](#)

Cytogenetics: 11q22.3

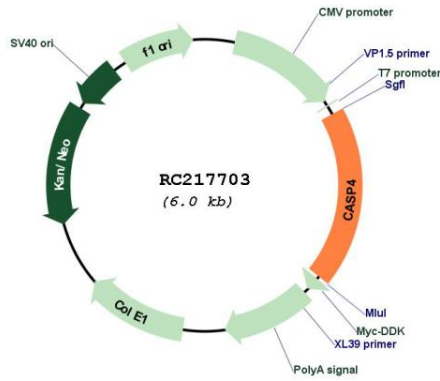
Domains: CARD, CASc, ICE_p10, ICE_p20

Protein Families: Druggable Genome, Protease

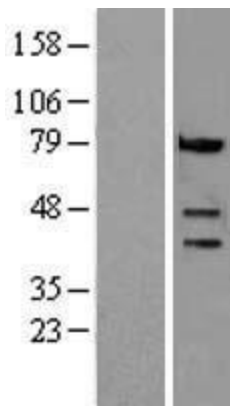
MW: 43.1 kDa

Gene Summary: This gene encodes a protein that 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 composed of a prodomain and a large and 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 caspase is able to cleave and activate its own precursor protein, as well as caspase 1 precursor. When overexpressed, this gene induces cell apoptosis. Alternative splicing results in transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC217703



Western blot validation of overexpression lysate (Cat# [LY400489]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217703 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).