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Product datasheet for RC204711

Caspase 4 (CASP4) (NM_033306) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase 4 (CASP4) (NM_033306) 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:

>RC204711 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAGAAGGCAACCACAGAAAAAAGCCACTTAAGGTGTTGGAATCCCTGGGCAAAGATTTCCTCACTG
GTGTTTTGGATAACTTGGTGGAACAAAATGTACTGAACTGGAAGGAAGAGGAAAAAAAGAAATATTACGA
TGCTAAAACTGAAGACAAAGTTCGGGTCATGGCAGACTCTATGCAAGAGAAGCAACGTATGGCAGGACAA
ATGCTTCTTCAAACCTTTTTTAACATAGACCAAATATCCCCCAATAAAAAAGCTCATCCGAATATGGAGG
CTGGACCACCTGAGTCAGGAGAATCTACAGATGCCCTCAAGCTTTGTCCTCATGAAGAATTCCTGAGACT
ATGTAAAGAAAGAGCTGAAGAGATCTATCCAATAAAGGAGAGAAACAACCGCACACGCCTGGCTCTCATC
ATATGCAATACAGAGTTTGACCATCTGCCTCCGAGGAATGGAGCTGACTTTGACATCACAGGGATGAAGG
AGCTACTTGAGGGTCTGGACTATAGTGTAGATGTAGAAGAGAATCTGACAGCCAGGGATATGGAGTCAGC
GCTGAGGGCATTTGCTACCAGACCAGAGCACAAGTCCTCTGACAGCACATTCTTGGTACTCATGTCTCAT
GGCATCCTGGAGGGAATCTGCGGAACTGTGCATGATGAGAAAAAACCAGATGTGCTGCTTTATGACACCA
TCTTCCAGATATTCAACAACCGCAACTGCCTCAGTCTGAAGGACAAACCCAAGGTCATCATTGTCCAGGC
CTGCAGAGGTGCAAACCGTGGGGAACTGTGGGTCAGAGACTCTCCAGCATCCTTGGAAGTGGCCTCTTCA
CAGTCATCTGAGAACCTGGAGGAAGATGCTGTTTACAAGACCCACGTGGAGAAGGACTTCATTGCTTTCT
GCTCTTCAACGCCACACAACGTGTCCTGGAGAGACAGCACAATGGGCTCTATCTTCATCACACAACTCAT
CACATGCTTCCAGAAATATTCTTGGTGCTGCCACCTAGAGGAAGTATTTCGGAAGGTACAGCAATCATTT
GAAACTCCAAGGGCCAAAGCTCAAATGCCCACCATAGAACGACTGTCCATGACAAGATATTTCTACCTCT
TTCCTGGCAAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC204711 protein sequence
Red=Cloning site Green=Tags(s)

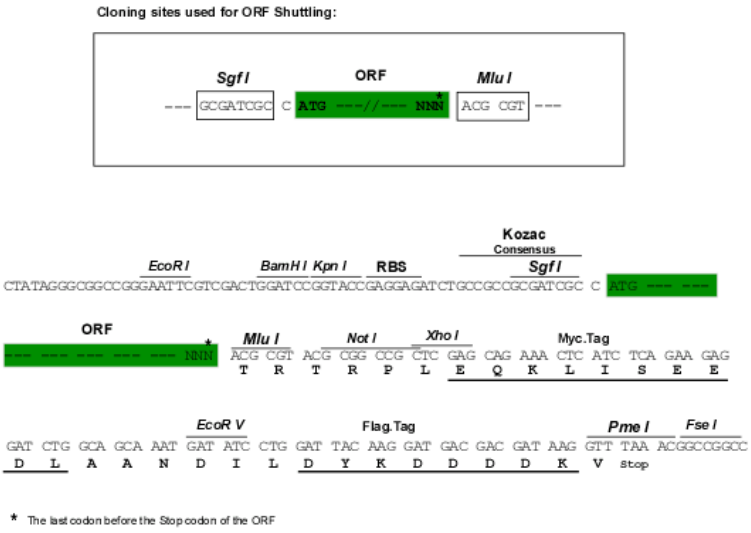
MAEGNHRKKPLKVLESLGKDFLTGVLDNLVEQNVLNWKEEEKKKYYDAKTEDKVRVMADSMQEKQRMAGQ
MLLQTFFNIDQISPNKKAHPNMEAGPPESGESTDALKLCPHEEFLRLCKERAEEIYPIKERNNRTRLALI
ICNTEFDHLPPRNGADFDITGMKELLEGLDYSVDVEENLTARDMESALRAFATRPEHKSSDSTFLVLMSH
GILEGICGTVHDEKKPDVLLYDTIFQIFNNRNCLSLKDKPKVIIVQACRGANRGELWVRDSPASLEVASS
QSSENLEEDAVYKTHVEKDFIAFCSSTPHNVSWRDSTMGSIFITQLITCFQKYSWCCHLEEVFRKVQQSF
ETPRAKAQMPTIERLSMTRYFYLFPGN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6438_e11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_033306

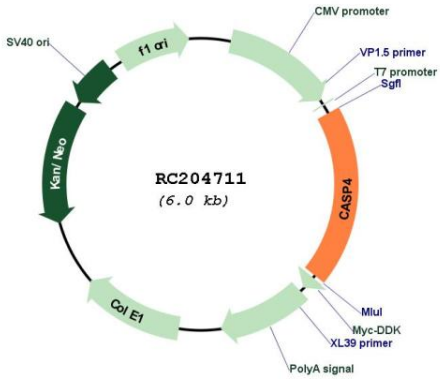
ORF Size: 1131 bp

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.

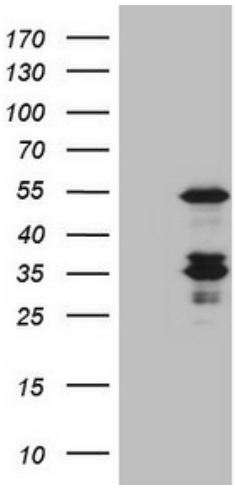
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in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

OTI Annotation:	This 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.
RefSeq Size:	1352 bp
RefSeq ORF:	966 bp
Locus ID:	837
UniProt ID:	P49662
Cytogenetics:	11q22.3
Domains:	CASc, ICE_p10, ICE_p20
Protein Families:	Druggable Genome, Protease
MW:	43.3 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]

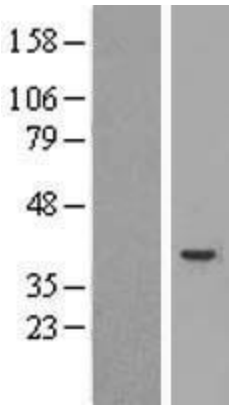
Product images:



Circular map for RC204711



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CASP4 (Cat# RC204711, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CASP4 (Cat# [TA805590])(1:2000). Positive lysates [LY409623] (100ug) and [LC409623] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY409623]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204711 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).