

Product datasheet for **RC223744**

Caspase 8 (CASP8) (NM_001228) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | Caspase 8 (CASP8) (NM_001228) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Caspase 8 |
| Synonyms: | ALPS2B; CAP4; Casp-8; FLICE; MACH; MCH5 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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ORF Nucleotide Sequence:

>RC223744 representing NM_001228
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGACTTCAGCAGAAATCTTTATGATATTGGGGAACAACTGGACAGTGAAGATCTGGCCTCCCTCAAGT
 TCCTGAGCTGGACTACATTCGCAAAAGGAAGCAAGAACCATCAAGGATGCCTTGATGTTATTCCAGAG
 ACTCCAGGAAAAGAGAATGTTGGAGGAAAGCAATCTGTCCTTCCTGAAGGAGCTGCTCTCCGAATTAAT
 AGACTGGATTTGCTGATTACCTACCTAAACACTAGAAAGGAGGAGATGGAAAGGGAACCTCAGACACCAG
 GCAGGGCTCAAATTTCTGCCTACAGTTCCACTTCTGCCGATGAGCTGGGCTGAAGCAAACAGCCAGTG
 CCAGACACAGTCTGTACCTTTCTGGCGGAGGTCGATCATCTATTAATAAGGGTCATGCTCTATCAAATT
 TCAGAAGAAGTGAGCAGATCAGAATTGAGGTCTTTAAGTTTCTTTGCAAGAGGAAATCTCAAATGCA
 AACTGGATGATGACATGAACCTGCTGGATATTTTCATAGAGATGGAGAAGAGGGTCATCCTGGGAGAAGG
 AAAGTTGGACATCTGAAAAGAGTCTGTGCCAAATCAACAAGAGCCTGCTGAAGATAATCAACGACTAT
 GAAGAATTCAGCAAAGGGGAGGAGTTGTGTGGGTAATGACAATCTCGGACTCTCCAAGAGAACAGGATA
 GTGAATCACAGACTTTGGACAAAGTTTACCAAATGAAAAGCAAACCTCGGGGATACTGTCTGATCATCAA
 CAATCACAAATTTGCAAAAGCACGGGAGAAAGTGCCCAAACCTTCACAGCATTAGGGACAGGAATGGAACA
 CACTTGGATGCAGGGGCTTTGACCACGACCTTTGAAGAGCTTCATTTTGAGATCAAGCCCCACGATGACT
 GCACAGTAGAGCAAATCTATGAGATTTTAAAACTACCAACTCATGGACCACAGTAACATGGACTGCTT
 CATCTGCTGTATCCTCTCCATGGAGACAAGGGCATCATCTATGGCACTGATGGACAGGAGGCCCCATC
 TATGAGCTGACATCTCAGTTCAGTGGTTGAAGTGCCTTCCCTTGCTGGAAAACCAAAGTGTTTTTTA
 TTCAGGCTTGTGAGGGGATAACTACCAGAAAGTATACTGTTGAGACTGATTACAGAGGACCAACCTA
 TTTAGAAATGGATTTATCATCACCTCAAACAGATATATCCCGGATGAGGCTGACTTTCTGCTGGGGATG
 GCCACTGTGAATAACTGTGTTTCTACCGAAACCTGCAGAGGGAACCTGGTACATCCAGTCACTTTGCC
 AGAGCCTGAGAGAGCGATGTCCTCGAGGCGATGATATTCTCACCATCCTGACTGAAGTGAACATGAAGT
 AAGCAACAAGGATGACAAGAAAAACATGGGGAAACAGATGCCTCAGCCTACTTTCACACTAAGAAAAAAA
 CTTGTCTTCCCTTCTGAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC223744 representing NM_001228
 Red=Cloning site Green=Tags(s)

MDFSRNLYDIGEQLDSEDLASLKFSLDYIPQRKQEPKDALMLFQRLQEKRMLEESNLSFLKELLFRIN
 RLDLLITYLNTRKEEMERELQTPGRAQISAYRFHFCRMSWAEANSQCQTQSVPFWRRVDHLLIRVMLYQI
 SEEVSRSFLRSFKFLQEEISKCKLDDDMNLLDIFIEMEKRVILGEGKLDILKRVCAQINKSLLKIINDY
 EEFKGEELCGVMTISDSPREQDSESQTLDKVYQMKSKPRGYCLINNHNFAKAREKVPKLHSIRDRNGT
 HLDAGALTTTFFELHFEIKPHDDCTVEQIYEILKIYQLMDHSNMDCFICILSHGDKGIIYGTGQGEAPI
 YELTSQFTGLKCPFLAGPKVFFIQACQGDNYQKGIPEVDSEEQPYLEMDLSSPQTRYIPDEADFLGM
 ATVNNCVSYRNP AEGTWYIQSLCQSLRERCPRGDDILTILTEVNYEVS NKDDKKNMGKMPQPTFTLRKK
 LVFPSD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6488_d08.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001228

ORF Size: 1488 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.

RefSeq: [NM_001228.4](#)

RefSeq Size: 2894 bp

RefSeq ORF: 1491 bp

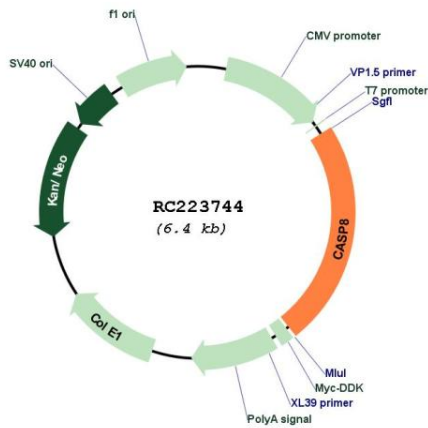
Locus ID: 841

UniProt ID: [Q14790](#)

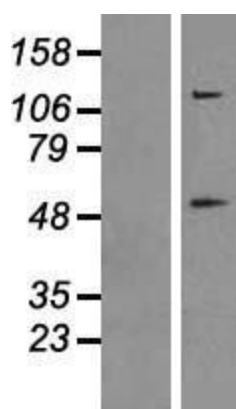
Cytogenetics: 2q33.1

| | |
|--------------------------|---|
| Domains: | DED, CASc, ICE_p10, ICE_p20 |
| Protein Families: | Druggable Genome, Protease |
| Protein Pathways: | Alzheimer's disease, Apoptosis, Huntington's disease, NOD-like receptor signaling pathway, p53 signaling pathway, Pathways in cancer, RIG-I-like receptor signaling pathway, Toll-like receptor signaling pathway, Viral myocarditis |
| MW: | 57.5 kDa |
| Gene Summary: | This gene encodes 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, a large protease subunit, and a 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 protein is involved in the programmed cell death induced by Fas and various apoptotic stimuli. The N-terminal FADD-like death effector domain of this protein suggests that it may interact with Fas-interacting protein FADD. This protein was detected in the insoluble fraction of the affected brain region from Huntington disease patients but not in those from normal controls, which implicated the role in neurodegenerative diseases. Many alternatively spliced transcript variants encoding different isoforms have been described, although not all variants have had their full-length sequences determined. [provided by RefSeq, Jul 2008] |

Product images:



Circular map for RC223744



Western blot validation of overexpression lysate (Cat# [LY420061]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223744 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).