

Product datasheet for RC221589

Caspase-7 (CASP7) (NM_033338) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase-7 (CASP7) (NM_033338) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Caspase-7
Synonyms:	CASP-7; CMH-1; ICE-LAP3; LICE2; MCH3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC221589 representing NM_033338 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACTGTGTTGGTTGGCCTCCAGGCAGGAAGTGGCACTTGAAAAGAACACCAGCTGCGGTGGTAGCA
GTGGGATTTGTGCTTCTTATGTTACCCAGATGGCAGATGATCAGGGCTGTATTGAAGAGCAGGGGTTGA
GGATTCAGCAAATGAAGATTCAGTGGATGCTAAGCCAGACCGGTCCTCGTTTGTACCGTCCCTCTCAGT
AAGAAGAAGAAAATGTCACCATGCGATCCATCAAGACCACCCGGGACCGAGTGCCTACATATCAGTACA
ACATGAATTTTAAAAGCTGGGCAAATGCATCATAATAAACAACAAGAAGCTTTGATAAAGTGACAGGTAT
GGGCGTTGAAAACGGAACAGACAAAGATGCCGAGGCGCTCTTCAAGTGCCTCCGAAGCCTGGGTTTTGAC
GTGATTGTCTATAATGACTGCTCTTGTGCCAAGATGCAAGATCTGCTTAAAAAGCTTCTGAAGAGGACC
ATACAAATGCCGCTGCTTCGCCTGCATCCTCTTAAGCCATGGAGAAGAAAATGTAATTTATGGGAAAGA
TGGTGTACACCAATAAAGGATTTGACAGCCACTTTAGGGGGGATAGATGCAAAACCCCTTTAGAGAAA
CCCAAATCTTCTTATTCAGGCTTGCCGAGGGACCGAGCTTGATGATGGCATCCAGGCCGACTCGGGGC
CCATCAATGACACAGATGCTAATCCTCGATAACAAGATCCCAGTGGAAAGCTGACTTCTCTTCGCCTATTC
CACGGTTCAGGCTATTACTCGTGGAGGAGCCAGGAAGAGGCTCCTGGTTTGTGCAAGCCCTCTGCTCC
ATCCTGGAGGAGCACGGAAAAGACCTGGAAATCATGCAGATCCTCACCAGGGTGAATGACAGAGTTGCCA
GGCACTTTGAGTCTCAGTCTGATGACCCCACTTCCATGAGAAGAAGCAGATCCCCTGTGTGGTCTCCAT
GCTCACCAAGGAAGTCTACTTCAGTCAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC221589 representing NM_033338
 Red=Cloning site Green=Tags(s)

MDCVGPWPGRKWHLEKNTSCGGSSGICASYVTQMADDQGCIEEQGVEDSANEDSVDAKPDRSSFVPSLFS
 KKKKNVTMRSIKTTRDRVPTYQYNMNFELGKCIINNNKFDKVTGMGVRNGTDKDAEALFKCFRSLGFD
 VIYVNDSCAKMQDLLKKASEEDHTNAACFACILLSHGEENVYIGKDGVTPIKDLTAHFRGDRCKTLLEK
 PKLFFIQACRGTELEDDGIQADSGPINDTDANPRYKIPVEADFLFAYSTVPGYYSWRSPGRGSWFVQALCS
 ILLEEHGKDLIMQILTRVNDRVARHFESQSDDPHFHEKKQIPCVVSMMLTKELYFSQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8053_a08.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_033338

ORF Size: 1008 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_033338.6](#)

RefSeq Size: 2712 bp

RefSeq ORF: 1011 bp

Locus ID: 840

UniProt ID: [P55210](#)

Cytogenetics: 10q25.3

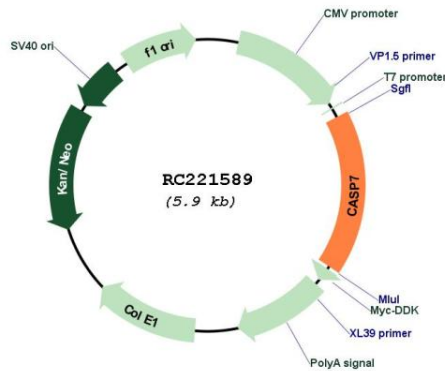
Protein Families: Druggable Genome, Protease

Protein Pathways: Alzheimer's disease, Apoptosis

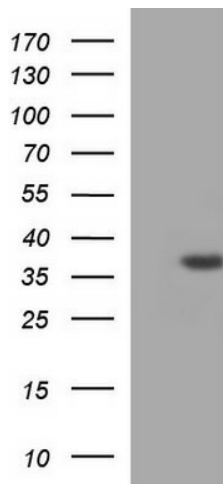
MW: 37.6 kDa

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 which undergo proteolytic processing at conserved aspartic residues to produce two subunits, large and small, that dimerize to form the active enzyme. The precursor of the encoded protein is cleaved by caspase 3 and 10, is activated upon cell death stimuli and induces apoptosis. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, May 2012]

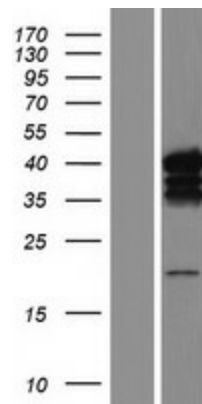
Product images:



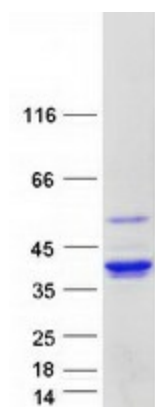
Circular map for RC221589



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CASP7 (Cat# RC221589, 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-CASP7 (Cat# [TA590426]). Positive lysates [LY429870] (100ug) and [LC429870] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY409591]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221589 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CASP7 protein (Cat# [TP321589]). The protein was produced from HEK293T cells transfected with CASP7 cDNA clone (Cat# RC221589) using MegaTran 2.0 (Cat# [TT210002]).