

## Product datasheet for RC210421

### Caspase 5 (CASP5) (NM\_004347) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase 5 (CASP5) (NM_004347) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Caspase 5
Synonyms:	ICE(rel)III; ICEREL-III; ICH-3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210421 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTCAAAGGTATCCTTCAGAGTGGATTGGATAACTTCGTGATAAACCACATGCTAAAGAACAACGTGG  
CTGACAAACATCTATCCAGACCCTAGTACCTAATACGGATCAAAAGTCGACCAGTGTAAAAAAGACAA  
CCACAAAAAAGACAGTAAAGATGTTGGAATACCTGGGCAAAGATGTTCTTCATGGTGTITTTAATTAT  
TTGGCAAAACACGATGTTCTGACATTGAAGGAAGAGGAAAAGAAAAATATTATGATGCCAAAATGAAG  
ACAAGGCCCTGATCTTGGTAGACTCTTTGCGAAAGAATCGCGTGGCTCATCAAATGTTTACCCAAACACT  
TCTCAATATGGACAAAAGATCACCAGTGTAAAACCTCTCTGCAATCGAGGCTGGACCACCTGAGTCA  
GCAGAATCTACAAATATACTCAAACCTTTGTCTCGTGAAGAATTCCTGAGACTGTGTAAAAAATCATG  
ATGAGATCTATCCAATAAAAAAGAGAGAGGACCGCAGACGCTGGCTCTCATCATATGCAATACAAAGTT  
TGATCACCTGCCTGCAAGGAATGGGGCTCACTATGACATCGTGGGGATGAAAAGGCTGCTCAAGGCCTG  
GGCTACACTGTGGTTGACGAAAAGAACTCACAGCCAGGGATATGGAGTCAGTGTGAGGGCATTGCTG  
CCAGACCAGAGCACAAGTCTCTGACAGCACGTTCTTGGTACTCATGTCTCATGGCATCTAGAGGGAAT  
CTGGCGAACTGCGCATAAAAAAGAAAAAACCAGGATGTGCTGCTTTATGACACCATCTCCAGATATCAAC  
AACCGCAACTGCCTCAGTCTAAAGGACAAACCCAAGTCACTTGTCCAGGCCTGCAGAGGTGAAAAAC  
ATGGGGAACCTGGGTGACAGACTCTCCAGCATCCTTGGCACTCATCTCTCACAGTCATCTGAGAACCT  
GGAGGCAGATTCTGTTTGAAGATCCACAGGAGAAGGACTTCATTGCTTTCTGTTCTTCAACACCACAT  
AACGTGCTGAGAGACCGCACAAGGGCTCCATCTTACGGAACCTCATCATGCTTCCAGAAAT  
ATTCTGCTGCTGCCACCTAATGGAAATATTTGGAAGGTACAGAAATCATTTGAAGTCCACAGGCTAA  
AGCCAGATGCCACCATAGAACGAGCAACCTTGACAAGAGATTTCTACCTTTCTGGAAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC210421 protein sequence  
 Red=Cloning site Green=Tags(s)

MFKGILQSGLDNFVINHMLKNNVAGQTSIQTLVPNTDQKSTSVKKNHKKKTKMLEYLGKDV LHGVFNY  
 LAKHDVLT LKEEEKKKYDAKIEDKALILVDSL RKNRVAHQMFTQTLLNMDQKITSVKPLLQIEAGPPES  
 AESTNILKLC PEEFLRLCKKNHDEIYPIKKREDRRRLALII CNTKFDHLPARNGAHYDIVGMKRLLQGL  
 GYTVVDEKNLTARDMESVLRFAARPEHKSSDSTFLV LMSHGILEGICGTAHKKKKPDVLLYDTIFQIFN  
 NRNCLSLKDKPKVII VQACRGEKHGELWVRD SPASLALISSQSENLEADSVCKIHEEKDFIAFCSSTPH  
 NVSWRDRTRGSIFITELITCFQKYSCCHLMEIFR KVQKSFEVPAQAQMPTIERATLTRDFYLFPGN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6007\\_e05.zip](https://cdn.origene.com/chromatograms/mk6007_e05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_004347

**ORF Size:** 1254 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\\_004347.5](#)

**RefSeq Size:** 1449 bp

**RefSeq ORF:** 1305 bp

**Locus ID:** 838

**UniProt ID:** [P51878](#)

**Cytogenetics:** 11q22.3

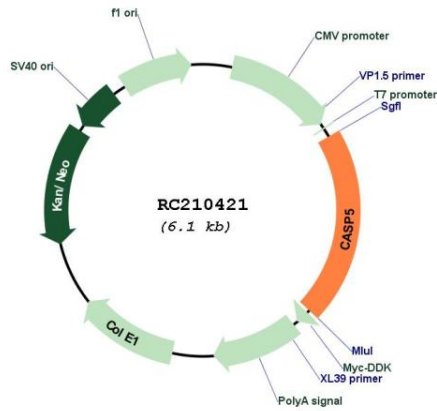
**Protein Families:** Druggable Genome, Protease

**Protein Pathways:** NOD-like receptor signaling pathway

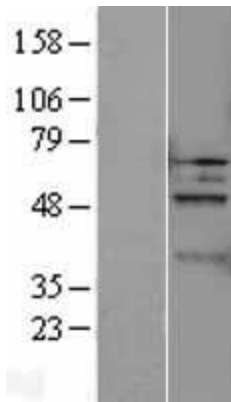
**MW:** 47.8 kDa

**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. Overexpression of the active form of this enzyme induces apoptosis in fibroblasts. Max, a central component of the Myc/Max/Mad transcription regulation network important for cell growth, differentiation, and apoptosis, is cleaved by this protein; this process requires Fas-mediated dephosphorylation of Max. The expression of this gene is regulated by interferon-gamma and lipopolysaccharide. Alternatively spliced transcript variants have been identified for this gene. [provided by RefSeq, Aug 2010]

Product images:



Circular map for RC210421



Western blot validation of overexpression lysate (Cat# [LY401386]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210421 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).