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Product datasheet for RC221545

Caspase-7 (CASP7) (NM_001227) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase-7 (CASP7) (NM_001227) 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:

>RC221545 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAGATGAGCAGGGCTGTATTGAAGAGCAGGGGGTTGAGGATTCAGCAAATGAAGATTCAGTGGATG
CTAAGCCAGACCGGTCCTCGTTTGTACCGTCCCTCTTCAGTAAGAAGAAGAAAAATGTCACCATGCGATC
CATCAAGACCACCCGGGACCGAGTGCCTACATATCAGTACAACATGAATTTTGAAAAGCTGGGCAAATGC
ATCATAATAAACAACAAGAACTTTGATAAAGTGACAGGTATGGGCGTTCGAAACGGAACAGACAAAGATG
CCGAGGCGCTCTTCAAGTGCTTCCGAAGCCTGGGTTTTGACGTGATTGTCTATAATGACTGCTCTTGTGC
CAAGATGCAAGATCTGCTTAAAAAAGCTTCTGAAGAGGACCATACAAATGCCGCCTGCTTCGCCTGCATC
CTCTTAAGCCATGGAGAAGAAAATGTAATTTATGGGAAAGATGGTGTCACACCAATAAAGGATTTGACAG
CCCACTTTAGGGGGGATAGATGCAAAACCCTTTTAGAGAAACCCAAACTCTTCTTCATTCAGGCTTGCCG
AGGGACCGAGCTTGATGATGGCATCCAGGCCGACTCGGGGCCCATCAATGACACAGATGCTAATCCTCGA
TACAAGATCCCAGTGGAAGCTGACTTCCTCTTCGCCTATTCCACGGTTCCAGGCTATTACTCGTGGAGGA
GCCCAGGAAGAGGCTCCTGGTTTGTGCAAGCCCTCTGCTCCATCCTGGAGGAGCACGGAAAAGACCTGGA
AATCATGCAGATCCTCACCAGGGTGAATGACAGAGTTGCCAGGCACTTTGAGTCTCAGTCTGATGACCCA
CACTTCCATGAGAAGAAGCAGATCCCCTGTGTGGTCTCCATGCTCACCAAGGAACTCTACTTCAGTCAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC221545 protein sequence
Red=Cloning site Green=Tags(s)

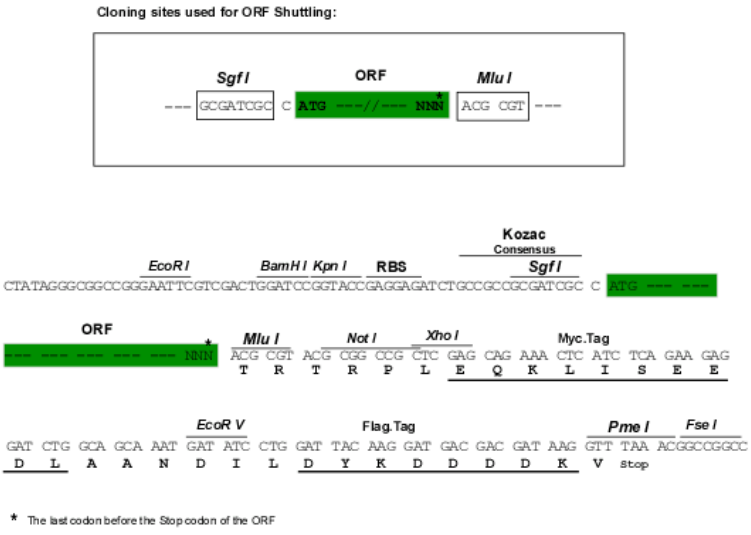
MADEQGCIEEQGVEDSANEDSVDAKPDRSSFVPSLFSKKKKNVTMRSIKTTRDRVPTYQYNMNFEKLGKC
IIINNKNFDKVTGMGVRNGTDKDAEALFKCFRSLGFDVIVYNDCSCAKMQDLLKKASEEDHTNAACFACI
LLSHGEENVIYGKDGVTPIKDLTAHFRGDRCKTLLEKPKLFFIQACRGTELDDGIQADSGPINDTDANPR
YKIPVEADFLFAYSTVPGYYSWRSPGRGSWFVQALCSILEEHGKDLEIMQILTRVNDRVARHFESQSDDP
HFHEKKQIPCVVSMLTKELYFSQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6306_h02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001227

ORF Size: 909 bp

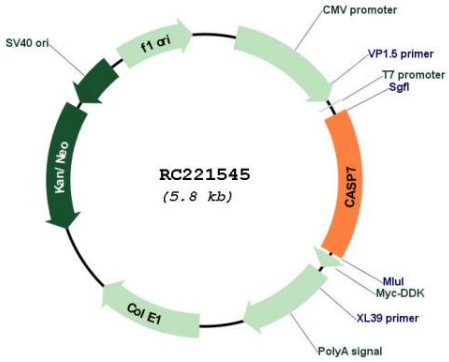
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

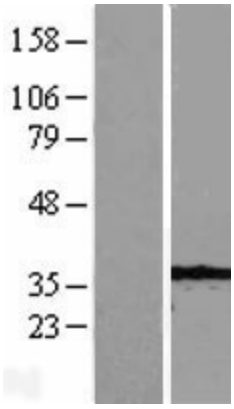
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_001227.5
RefSeq Size:	2607 bp
RefSeq ORF:	912 bp
Locus ID:	840
UniProt ID:	P55210
Cytogenetics:	10q25.3
Domains:	CASc, ICE_p10, ICE_p20
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Alzheimer's disease, Apoptosis
MW:	34.3 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]

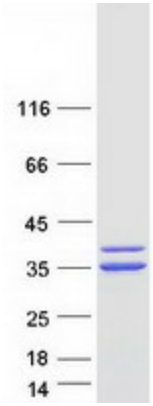
Product images:



Circular map for RC221545



Western blot validation of overexpression lysate (Cat# [LY420060]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221545 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CASP7 protein (Cat# [TP321545]). The protein was produced from HEK293T cells transfected with CASP7 cDNA clone (Cat# RC221545) using MegaTran 2.0 (Cat# [TT210002]).