

## Product datasheet for **RG223512**

### Caspase 1 (CASP1) (NM\_001223) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase 1 (CASP1) (NM_001223) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CASP1
Synonyms:	ICE; IL1BC; P45
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG223512 representing NM_001223 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCGACAAGGTCCTGAAGGAGAAGAGAAAGCTGTTTATCCGTTCCATGGGTGAAGGTACAATAAATG  
GCTTACTGGATGAATTATTACAGACAAGGGTGCTGAACAAGGAAGAGATGGAGAAAGTAAAACGTGAAAA  
TGCTACAGTTATGGATAAGACCCGAGCTTTGATTGACTCCGTTATCCGAAAGGGGCACAGGCATGCCAA  
ATTTGCATCACATACATTTGTGAAGAAGACAGTTACCTGGCAGGGACGCTGGGACTCTCAGCAGCTCCTC  
AGGCAGTGCAGGACAACCCAGCTATGCCACATCCTCAGGCTCAGAAGGGAAATGTCAAGCTTTGCTCCCT  
AGAAGAAGCTCAAAGGATATGGAACAACAAAGTCGGCAGAGATTTATCCAATAATGGACAAGTCAAGCCGC  
ACACGTCTTGCTCTCATTATCTGCAATGAAGAATTTGACAGTATTCCTAGAAGAACTGGAGCTGAGGTTG  
ACATCACAGGCATGACAAATGCTGCTACAAAATCTGGGGTACAGCGTAGATGTGAAAAAAAAATCTCACTGC  
TTCGGACATGACTACAGAGCTGGAGGCATTTGCACACCGCCCAGAGCACAAGACCTCTGACAGCAGCTTC  
CTGGTGTTCATGTCTCATGGTATTCGGGAAGGCATTTGTGGGAAGAACTCTGAGCAAGTCCCAGATA  
TACTACAACTCAATGCAATCTTTAACATGTTGAATACCAAGAAGTCCCAAGTTTGAAGGACAAACCGAA  
GGTGATCATCATCCAGGCCTGCCGTGGTGACAGCCCTGGTGTGGTGTGGTTTAAAGATTCAGTAGGAGTT  
TCTGGAAACCTATCTTTACCAACTACAGAAGATTTGAGGATGATGCTATTAAGAAGCCCATAGAGA  
AGGATTTTATCGCTTTCTGCTCTCCACACCAGATAATGTTTCTGGAGACATCCCACAATGGGCTCTGT  
TTTTATTGGAAGACTCATTGAACATATGCAAGAATATGCCTGTTCTGTGATGTGGAGGAAATTTCCGC  
AAGGTTTCGATTTTCATTTGAGCAGCCAGATGGTAGAGCGCAGATGCCACCCTGAAAGAGTGACTTTGA  
CAAGATGTTTCTACCTCTCCAGGACAT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

Protein Sequence: >RG223512 representing NM\_001223  
 Red=Cloning site Green=Tags(s)

MADKVLKEKRKLFIRSMGEGTINGLLDELLQTRVLNKEEMEKVKRENATVMDKTRALIDSVIPKGAQACQ  
 ICITYICEEDSYLAGTLGLSAAPQAVQDNPAMPTSSGSEGNVKLCSLEEAQRWQKSAE IYPIMDKSSR  
 TRLALIICNEEFDSIPRRTGAEVDITGMTLLQLNGYSVDVKKNLTASDMTTELEAFHRPEHKTSDFV  
 LVFMSHGIREGICGKKHSEQVDPDILQLNAIFNMLNNTKNCPSLKDKPKVII IQACRGDSPGVVWFKDSVGV  
 SGNLSLPTTEEFEDDAIKKAHIEKDFIAFCSSSTPDNVSWRHPTMGSVFIGRLIEHMQEYACSCDVEEIFR  
 KVRFSFEQPDGRAQMPPTTERTVTLTRCFYLFPGH

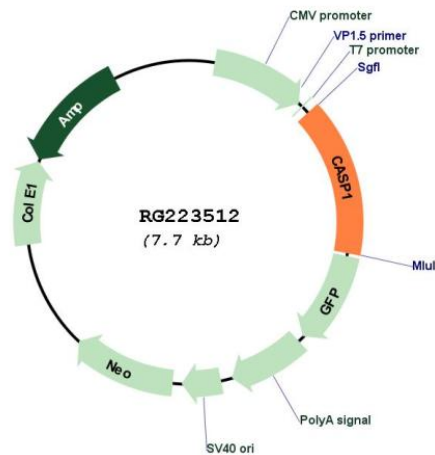
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001223

<b>ORF Size:</b>	1149 bp
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_001223.5</a>
<b>RefSeq Size:</b>	1301 bp
<b>RefSeq ORF:</b>	1152 bp
<b>Locus ID:</b>	834
<b>UniProt ID:</b>	<a href="#">P29466</a>
<b>Cytogenetics:</b>	11q22.3
<b>Domains:</b>	CARD, CASc, ICE_p10, ICE_p20
<b>Protein Families:</b>	Druggable Genome, Protease
<b>Protein Pathways:</b>	Amyotrophic lateral sclerosis (ALS), Cytosolic DNA-sensing pathway, NOD-like receptor signaling pathway

**Gene Summary:**

This gene encodes a protein which 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 which undergo proteolytic processing at conserved aspartic residues to produce 2 subunits, large and small, that dimerize to form the active enzyme. This gene was identified by its ability to proteolytically cleave and activate the inactive precursor of interleukin-1, a cytokine involved in the processes such as inflammation, septic shock, and wound healing. This gene has been shown to induce cell apoptosis and may function in various developmental stages. Studies of a similar gene in mouse suggest a role in the pathogenesis of Huntington disease. Alternative splicing results in transcript variants encoding distinct isoforms. [provided by RefSeq, Mar 2012]