

Product datasheet for **RG232624**

Caspase 1 (CASP1) (NM_001257119) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase 1 (CASP1) (NM_001257119) 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:	>RG232624 representing NM_001257119 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCGACAAGGTCCTGAAGGAGAAGAGAAAGCTGTTTATCCGTTCCATGGGTGAAGGTACAATAAATG
GCTTACTGGATGAATTATTACAGACAAGGGTGCTGAACAAGGAAGAGATGGAGAAAGTAAAACGTGAAAA
TGCTACAGTTATGGATAAGACCCGAGCTTTGATTGACTCCGTTATTCCGAAAGGGGCACAGGCATGCCAA
ATTTGCATCACATACATTTGTGAAGAAGACAGTTACCTGGCAGGGACGCTGGGACTCTCAGCAGCTCCTC
AGGCAGTGCAGGACAACCCAGCTATGCCACATCCTCAGGCTCAGAAGGGAATGTCAAGCTTTGCTCCCT
AGAAGAAGCTCAAAGGATATGGAACAACAAAGTCGGCAGAGATTTATCCAATAATGGACAAGTCAAGCCGC
ACACGTCTTGCTCTCATTATCTGCAATGAAGAATTTGACAGTATTCCTAGAAGAACTGGAGCTGAGGTTG
ACATCACAGGCATGACAAATGCTGCTACAAAATCTGGGGTACAGCGTAGATGTGAAAAAAAAATCTCACTGC
TTCGGACATGACTACAGAGCTGGAGGCATTTGCACACCGCCAGAGCACAAGACCTCTGACAGCAGCTTC
CTGGTGTTCATGTCTCATGGTATTCGGGAAGGCATTTGTGGGAAGAACTCTGAGCAAGTCCCAGATA
TACTACAACTCAATGCAATCTTTAACATGTTGAATACCAAGAAGTCCCAAGTTTGAAGGACAAACCGAA
GGTGATCATCATCCAGGCCTGCCGTGGTGACAGCCCTGGTGTGGTGTGGTTTAAAGATTCAGTAGGAGTT
TCTGAAAACCTATCTTTACCAACTACAGAAGAGTTTGAGGATGATGCTATTAAGAAGCCACATAGAGA
AGGATTTTATCGCTTTCTGCTCTCCACACCAGATAATGTTTCTGGAGACATCCCAACAATGGGCTCTGT
TTTTATTGGAAGACTCATTGAACATATGCAAGAATATGCCTGTTCTGTGATGTGGAGGAAATTTCCGC
AAGGTTTCGATTTTCATTTGAGCAGCCAGATGGTAGAGCGCAGATGCCACCACCTGAAAGAGTGACTTTGA
CAAGATGTTTCTACCTCTCCAGGACAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG232624 representing NM_001257119
 Red=Cloning site Green=Tags(s)

MADKVLKEKRKLFIRSMGEGTINGLLDELLQTRVLNKEEMEKVKRENATVMDKTRALIDSVIPKGAQACQ
 ICITYICEEDSYLAGTLGLSAAPQAVQDNPAMPTSSGSEGNVKLCSLEEAQRIWKQKSAEIYIPIMDKSSR
 TRLALIICNEEFDSIPRRTGAEVDITGMTLLQLNGYSVDVKKNLTASDMTTELEAFHRPEHKTSDFV
 LVFMSHGIREGICGKKHSEQVDPDILQLNAIFNMLNNTKNCPSLKDKPKVIIIQACRGDSPGVVWFKDSVGV
 SGNLSLPTTEEFEDDAIKKAHIEKDFIAFCSSTPDNVSWRHPTMGSVFIGRLIEHMQEYACSCDVEEIFR
 KVRFSFEQPDGRAQMPPTTERTVTLTRCFYLFPGH

TRTRPLE - GFP Tag - V

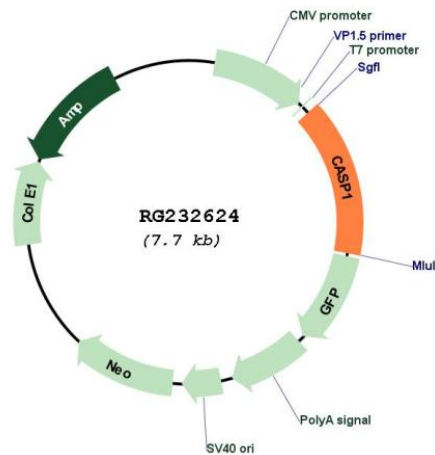
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_001257119

ORF Size:	1149 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:	<ol style="list-style-type: none">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_001257119.3
RefSeq Size:	1956 bp
RefSeq ORF:	1152 bp
Locus ID:	834
UniProt ID:	P29466
Cytogenetics:	11q22.3
Protein Families:	Druggable Genome, Protease
Protein Pathways:	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]