

Product datasheet for **RG223662**

Caspase 3 (CASP3) (NM_004346) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase 3 (CASP3) (NM_004346) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Caspase 3
Synonyms:	CPP32; CPP32B; SCA-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG223662 representing NM_004346 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGAACACTGAAAACACTCAGTGGATTCAAATCCATTAAAAATTTGGAACAAAGATCATACATGGAA
GCGAATCAATGGACTCTGGAATATCCCTGGACAACAGTTATAAAATGGATTATCCTGAGATGGGTTTATG
TATAATAATTAATAAAGAATTTTCATAAAAGCACTGGAATGACATCTCGGTCTGGTACAGATGTCGAT
GCAGCAAACCTCAGGGAAACATTCAGAACTTGAATATGAAGTCAGGAATAAAATGATCTTACACGTG
AAGAAATTGTGGAATTGATGCGTGATGTTCTAAAGAAGATCACAGCAAAGGAGCAGTTTTGTTTGTGT
GCTTCTGAGCCATGGTGAAGAAGGAATAATTTTTGGAACAAATGGACCTGTTGACCTGAAAAAATAACA
AACTTTTTTCAGAGGGGATCGTTGTAGAAGTCTAACTGGAAAACCCAAACTTTTTATTTCAGGCCTGCC
GTGGTACAGAACTGGACTGTGGCATTGAGACAGACAGTGGTGTGATGATGACATGGCGTGCATAAAAT
ACCAGTGGAGGCCGACTTCTTGTATGCATACTCCACAGCACCTGGTTATTATTCTTGCGAAATTCAAAG
GATGGCTCCTGGTTCATCCAGTCGCTTTGTGCCATGCTGAAACAGTATGCCGACAAGCTTGAATTTATGC
ACATTCTTACCCGGTTAACCAGAAAGGTGGCAACAGAATTTGAGTCCTTTTCTTTGACGCTACTTTTCA
TGCAAAGAAACAGATTCATGTATTGTTCCATGCTCACAAAAGAACTCTATTTTTATCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG223662 representing NM_004346
 Red=Cloning site Green=Tags(s)

MENTENSVDSKSIKNLEPKIIHGSESMDSGISLDNSYKMDYPEMGLCIIINKNFHKSTGMTSRSGTDVD
 AANLRETFRNLYEVNRKNDL TREEIVELMRDVSKEHDKRSSFVCLLSHGEEGIIFGTNGPVDLKKIT
 NFFRGDRCSRSLTGKPKLFI IQACRGTELDCGIETDSGVDDDMACHKIPVEADFLYAYSTAPGYYSWRNSK
 DGSWFIQSLCAMLKQYADKLEFMHILTRVNRKVATEFESFSFDATFHAKKQIPCIIVSMLTKELYFYH

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004346

ORF Size: 831 bp

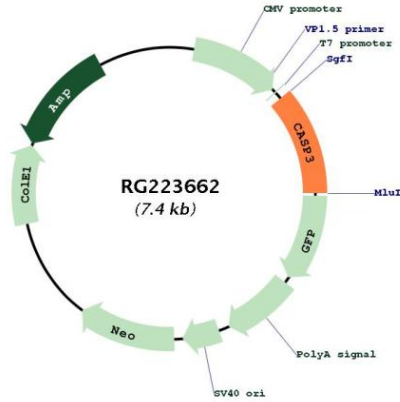
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_004346.4
RefSeq Size:	2689 bp
RefSeq ORF:	834 bp
Locus ID:	836
UniProt ID:	P42574
Cytogenetics:	4q35.1
Domains:	CASc, ICE_p10, ICE_p20
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Protease
Protein Pathways:	Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Apoptosis, Colorectal cancer, Epithelial cell signaling in Helicobacter pylori infection, Huntington's disease, MAPK signaling pathway, Natural killer cell mediated cytotoxicity, p53 signaling pathway, Parkinson's disease, Pathways in cancer, Viral myocarditis
Gene Summary:	The protein encoded by this gene is a cysteine-aspartic acid protease that plays a central role in the execution-phase of cell apoptosis. The encoded protein cleaves and inactivates poly(ADP-ribose) polymerase while it cleaves and activates sterol regulatory element binding proteins as well as caspases 6, 7, and 9. This protein itself is processed by caspases 8, 9, and 10. It is the predominant caspase involved in the cleavage of amyloid-beta 4A precursor protein, which is associated with neuronal death in Alzheimer's disease. [provided by RefSeq, Aug 2017]

Product images:



Circular map for RG223662