Product datasheet for RC223512L2

Caspase 1 (CASP1) (NM_001223) Human Tagged Lenti ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase 1 (CASP1) (NM_001223) Human Tagged Lenti ORF Clone
Tag:	mGFP
Symbol:	Caspase 1
Synonyms:	ICE; IL1BC; P45
Mammalian Cell Selection:	None
Vector:	pLenti-C-mGFP (PS100071)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC223512).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:

Sgf I   ORF   *Mlu* I

--- GCG ATC GC C ATG ---//--- NNÑ ACG CGT ---

CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG --- --- ---
    EcoR I   *BamH* I   RBS   Kozak Consensus   *Sgf* I   ORF

--- --- --- --- --- --- NNÑ ACG CGT ACG CGG CCG CTC GAG ATG AGC GGG GGC --- --- --- --- ---
    Mlu I   *Not* I   *Xho* I   mGFP Tag
    T   R   T   R   P   L   E   M   S   G   G   -   -   -

--- --- GGA CTC AGA TAA GTT TAA ACGGCCGGCCGCGG
    Pme I
   - - G L R Stop

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

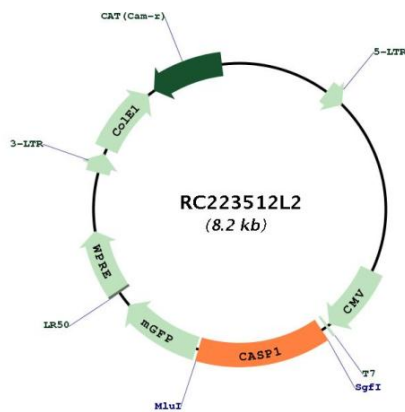|	
ACCN:	NM_001223
ORF Size:	1149 bp

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OTI Disclaimer:	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 custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.
	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_001223.3
RefSeq Size:	1301 bp
RefSeq ORF:	1152 bp
Locus ID:	834
UniProt ID:	P29466
Cytogenetics:	11q22.3
Domains:	CARD, CASc, ICE_p10, ICE_p20
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Amyotrophic lateral sclerosis (ALS), Cytosolic DNA-sensing pathway, NOD-like receptor signaling pathway
MW:	42.7 kDa

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]

Product images:

Circular map for RC223512L2