Recombinant Human CASP1 protein, His-tagged

Cat. No. CASP1-180H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CASP1(1 - 311 aa) fused with His tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	1-311 a.a.
Description	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.
Form	Protein lyophilized in sterile PBS (58 mM Na2HPO4, 17 mM NaH2PO4, 68 mM NaCl, 300 mM Imidazole, pH 8.0). Trehalose (5-8%) and mannitol (5-8%) protectants were added before lyophilization.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

AA Sequence	MADKVLKEKRKLFIRSMGEAPQAVQDNPAMPTSSGSEGNVKLCSLEEAQRIWKQKS AEIYPIMDKSSRTRLALII CNEEFDSIPRRTGAEVDITGMTMLLQNLGYSVDVKKNLTA SDMTTELEAFAHRPEHKTSDSTFLVFMSHGIREGI CGKKHSEQVPDILQLNAIFNML NTKNCPSLKDKPKVIIIQACRGDSPGVVWFKDSVGVSGNLSLPTTEEFEDDAI KKAHI EKDFIAFCSSTPDNVSWRHPTMGSVFIGRLIEHMQEYACSCDVEEIFRKVRFSFEQP DGRAQMPTTERVT LTRCFYLFPGH
Purity	> 90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Storage	Store for up to 12 months at -20 centigradeto -80 centigradeas lyophilized powder.Storage of Reconstituted Protein:Short-term storage: Store at 2-8 centigradefor two weeks.Long-term storage: Aliquot and store at -20 centigradeto -80 centigradefor up to 6 months, buffer containing 50% glycerol is recommended for reconstitution. Avoid repeat freeze-thaw cycles.
Reconstitution	Reconstitute at 0.25 ḡ/µl in 200 µl sterile water for short-term storage.Reconstitution with 200 µl 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details).If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used).Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.

GENE INFORMATION

Gene Name	CASP1 caspase 1, apoptosis-related cysteine peptidase [Homo sapiens]
Official Symbol	CASP1
Synonyms	CASP1; caspase 1, apoptosis-related cysteine peptidase; caspase 1, apoptosis

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	related cysteine peptidase (interleukin 1, beta, convertase) , caspase 1, apoptosis related cysteine protease (interleukin 1, beta, convertase) , IL1BC; caspase-1; caspase 1; ICE; interleukin 1; beta; convertase; IL1B-convertase; CASP1 nirs variant 1; IL-1 beta-converting enzyme; interleukin 1, beta, convertase; interleukin 1-B converting enzyme; caspase 1, apoptosis-related cysteine peptidase (interleukin 1, beta, convertase); P45; IL1BC;
Gene ID	834
mRNA Refseq	NM_001223
Protein Refseq	NP_001214
MIM	147678
UniProt ID	P29466
Chromosome Location	11q23
Pathway	Amyotrophic lateral sclerosis (ALS), organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), conserved biosystem; Androgen Receptor Signaling Pathway, organism-specific biosystem; Apoptosis, organism-specific biosystem; Caspase cascade in apoptosis, organism-specific biosystem; Cellular roles of Anthrax toxin, organism-specific biosystem; Cytokine Signaling in Immune system, organism-specific biosystem;
Function	cysteine-type endopeptidase activator activity involved in apoptotic process; cysteine-type endopeptidase activity; peptidase activity; protein binding;

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA