Active Recombinant Human CASP1 Protein

Cat. No. CASP1-596H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Produced in E. coli. cDNA encodes residues identical to Asn120-His404 (C-terminus), except for an Asp381 to Glu change, introduced to stabilize the enzyme against autoproteolysis.
Species	Human
Source	E.coli
ProteinLength	120-404 aa
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	Liquid
Molecular Mass	~20 + 10 kDa

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Bio-activity	One U=1 pmol/min, using Ac-YVAD-pNA (200μM) as substrate, at 30 centigrade.
Purity	≥ 90% by SDS-PAGE
Application	Useful tool to study enzyme regulation and kinetics, cleave target substrates, screen for inhibitors.
Stability	After initial defrost, aliquot product into individual tubes and refreeze at -80 centigrade. Avoid repeated freeze/defrost cycles.The enzyme is stable on ice for the time typically required to set up an experiment (30-60 min.), but may lose activity with prolonged storage on ice. It is recommended that thawing and dilution of the enzyme be done within as short a time as possible before start of the assay. The remaining, undiluted and unused enzyme should be refrozen quickly by, for example, snap-freezing in a dry ice ethanol bath or liquid nitrogen. The enzyme is stable to at least 4 freeze/thaw cycles.
Storage	Long term storage at -80 centigrade
Storage Buffer	In 50mM HEPES, pH 7.4, containing 100mM sodium chloride, 0.5% CHAPS, 1mM EDTA, 10% glycerol and 10mM DTT.
Shipping	Dry Ice

GENE INFORMATION

Gene Name	CASP1 caspase 1 [Homo sapiens (human)]
Official Symbol	CASP1
Synonyms	CASP1; caspase 1, apoptosis-related cysteine peptidase; caspase 1, apoptosis related cysteine peptidase (interleukin 1, beta, convertase) , caspase 1, apoptosis

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	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

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