

## Recombinant Human CASP3

**Cat. No.** CASP3-158H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	CASP3, 176-277aa, Human, E.coli
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	176-277aa
<b>Description</b>	<p>CASP3 is 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 two subunits, large and small, that dimerize to form the active enzyme. This protein cleaves and activates caspases 6, 7 and 9, and the 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. Recombinant human CASP3 protein, fused to His-tag at N-terminus, was expressed in E.coli.</p>
<b>Form</b>	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.4M Urea, 10% glycerol
<b>Molecular Mass</b>	12 kDa (103aa)
<b>AA Sequence</b>	MSGVDDDMAC HKIPVEADFL YAYSTAPGY Y SWRNSKDGSW FIQSLCAMLK QYADKLEFMH ILTRVNRKVA TEFESFSFDA TFHAKKQIPC IVSMLTKELY FYH

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<b>Purity</b>	>80% by SDS - PAGE
<b>Storage</b>	Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.
<b>Concentration</b>	0.5 mg/ml (determined by Bradford assay)
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	CASP3 caspase 3, apoptosis-related cysteine peptidase [ Homo sapiens ]
<b>Official Symbol</b>	CASP3
<b>Synonyms</b>	CASP3; caspase 3, apoptosis-related cysteine peptidase; caspase 3, apoptosis related cysteine protease; caspase-3; apopain; CPP32; CPP32B; Yama; CASP-3; CPP-32; procaspase3; protein Yama; PARP cleavage protease; cysteine protease CPP32; SREBP cleavage activity 1; caspase 3, apoptosis-related cysteine protease; SCA-1;
<b>Gene ID</b>	836
<b>mRNA Refseq</b>	NM_004346
<b>Protein Refseq</b>	NP_004337
<b>MIM</b>	600636
<b>UniProt ID</b>	P42574
<b>Chromosome Location</b>	4q34

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**Pathway**

Activation of DNA fragmentation factor, organism-specific biosystem; Activation of caspases through apoptosome-mediated cleavage, organism-specific biosystem; Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem; Alzheimers disease, organism-specific biosystem; Alzheimers disease, conserved biosystem; Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem;

**Function**

aspartic-type endopeptidase activity; cyclin-dependent protein kinase inhibitor activity; cysteine-type endopeptidase activity; cysteine-type endopeptidase activity; peptidase activity; protein binding;

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