Caspase-3

Cat. No. CBCRY39 **Lot. No.** (See product label)

SPECIFICATION

Source	E.coli
Background	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. Alternative splicing of this gene results in two transcript variants that encode the same protein.
Protein Classification	hydrolase
Structure Weight	114694.18 Da
Polymer	1
Molecule	Caspase-3
Chain Length	253 amino acids
PDB ID	3DEK
MMDB ID	66481

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Method	X-Ray Diffraction
Resolution	2.4Å
Ligand Chemical Component	Cysteinesulfonic acid
Reference	Du, J.-Q., Wu, J., Zhang, H.-J., Zhang, Y.-H., Qiu, B.-Y., Wu, F., Chen, Y.-H., Li, J.-Y., Nan, F.-J., Ding, J.-P., Li, J. (2008) Isoquinoline-1,3,4-trione Derivatives Inactivate Caspase-3 by Generation of Reactive Oxygen Species J.Biol.Chem. 283: 30205-30215

GENE INFORMATION

Gene Name	CASP3
Synonyms	CPP32; CPP32B; procaspase3; Yama; SCA-1; OTTHUMP00000165054; PARP cleavage protease; SREBP cleavage activity 1; apopain; caspase 3; caspase 3, apoptosis-related cysteine protease; cysteine protease CPP32;
UniProt ID	P42574
Gene ID	836
Chromosome Location	4q34
Function	cysteine-type endopeptidase activity; cyclin-depedent protein kinase inhibitor activity; peptidase activity; cysteine-type peptidase activity; hydrolase activity

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