

Caspase 3 (CASP3) Active Protein | CASP3 active protein

Active Caspase 3 (CASP3)

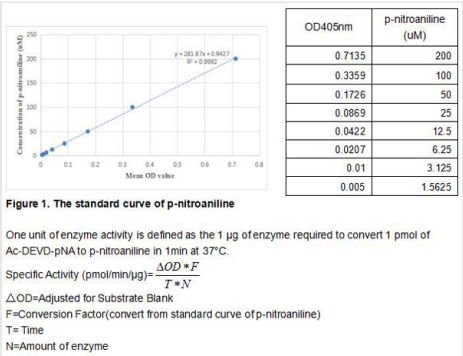
CATALOG # AAA161756	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Caspase 3 (CASP3); Active Caspase 3 (CASP3); Caspase 3; CPP32; CPP32B; SCA1; Apoptain; Yama; Apoptosis-Related Cysteine Peptidase; CysteinyI Aspartate Specific Proteinases 3; SREBP cleavage activity 14; CASP3 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Ser29~His2 77
Applicable Applications for CASP3 active protein	Activity Assay, Cell Culture
Species	Mouse
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	6.9
Research Area	Signal transduction, Enzyme & Kinase, Apoptosis, Tumor immunity, Infection immunity
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

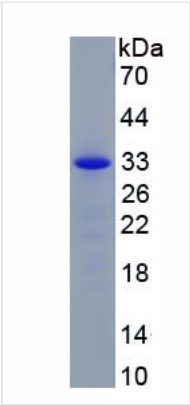


Bioactivity

Caspase 3 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 that 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 caspase 6 and 7; and the protein itself is processed and activated by caspases 8, 9, and 10. Caspase 3 can hydrolyze the peptide substrate acetyl-Asp-Glu-Val-Asp-p-nitroanilide (Ac-DEVD-pNA) resulting in the release of the p-nitroaniline (pNA) moiety. p-Nitroaniline has a high absorbance at 405 nm. Thus the activity of recombinant mouse caspase 3 can be measured by calculating the concentration of the pNA released from the substrate. The reaction was performed in adding 50 ul 2×buffer (50mM HEPES,100mM NaCl,10mM DTT, 2mM EDTA, 10% glycerol) to 96 well plates, then add 50 ul various concentrations of caspase 3 (diluted by 1×buffer, 25mM HEPES, 50mM NaCl, 5mM DTT, 1mM EDTA, 5% glycerol) to each well, finally, add 5 ul 4mM Ac-DEVD-pNA to each well. Cover the 96 well plates and incubate at 37 degree C for 1h. p-Nitroaniline (pNA) Standard curve prepare by double dilute 200 uM pNA with 1×buffer and record the OD value at 405 nm. The specific activity of recombinant mouse caspase3 is >3000 pmol/min/ug.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for CASP3 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	2114328
NCBI GeneID	12367
UniProt Accession #	P70677; O08668; Q8CHV5; Q9QWI4
Molecular Weight	31,475 Da
NCBI Official Full Name	CPP32
NCBI Official Synonym Full Names	caspase 3
NCBI Official Symbol	Casp3
NCBI Official Synonym Symbols	CC3; AC-3; Lice; Yama; mldy; CPP32; SCA-1; CASP-3; CPP-32; Caspase-3; A830040C14Rik
NCBI Protein Information	caspase-3
UniProt Protein Name	Caspase-3
UniProt Gene Name	Casp3
UniProt Synonym Gene Names	Cpp32; CASP-3; CPP-32; SCA-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

