

Active Caspase-3 Mouse Monoclonal Antibody

Catalog #: EAB14649

Host/Isotype	Clonality	Applications	MW (kDa)	Reactivity
Mouse IgG1	Monoclonal	WB, IP, IHC-P, IF/ICC	32	Human, Mouse, Rat

Applications Dilutions

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

WB (Western Blotting)	1:500-2000
IP (Immunoprecipitation)	1:20-200
IHC-P (Immunohistochemistry-Paraffin)	1:50-300
IF/ICC (Immunofluorescence/Immunocytochemistry)	1:50-300

Product Information

Conjugate	Unconjugate
Specificity	Active Caspase-3 Mouse Monoclonal Antibody detects endogenous levels of Active Caspase-3 protein.
Purification	Affinity purification
Concentration	1mg/ml
Format	Liquid
Formulation	In PBS, pH 7.4, Containing 0.02% sodium azide, 0.5% BSA and 50% Glycerol
Shipping	Gel Pack
Storage	Store at -20°C least 1 year from the date of shipment. Avoid repeated freeze/thaw cycles. Aliquots may be stored at +4°C for 1-2 weeks
UniProt ID	P42574
Entrez-Gene Id	836

Product Description

Caspase-3, also known as apopain, SCA-1, Yama and CPP32, is an aspartate-specific cysteine protease that belongs to the ICE subfamily of caspases. Caspase-3 is expressed in cells as an inactive precursor from which the p17 and p11 subunits of the mature caspase-3 are proteolytically generated during apoptosis. The caspase-3 precursor is first cleaved at Asp175-Ser176 to produce the p11 subunit and the p20 peptide. Subsequently, the p20 peptide is cleaved at Asp28-Ser29 to generate the mature p17 subunit. The active caspase-3 enzyme is a heterodimer composed of two p17 and two p11 subunits. At the onset of apoptosis, caspase-3 proteolytically cleaves PARP at an Asp216-Gly217 bond. During the execution of the apoptotic cascade, activated caspase-3 releases SREBP from the membrane of the ER in a proteolytic reaction that is distinct from their normal sterol-dependent activation. Caspase-3 cleaves and activates SREBPs between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain. Caspase-3 also cleaves and activates caspase-6, -7 and -9. The human caspase-3 gene encodes a cytoplasmic protein that is highly expressed in lung, spleen, heart, liver, kidney and cells of the immune system.

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