

PRODUCT INFORMATION



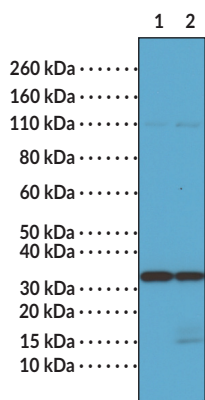
Caspase-3 Rabbit Monoclonal Antibody (Clone RM250)

Item No. 32203

Overview and Properties

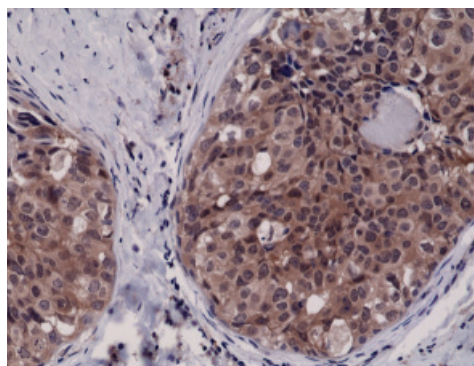
Contents:	This vial contains 100 μ l of protein A-affinity purified monoclonal antibody.
Synonyms:	Apoptosis-related Cysteine Protease, CASP-3, Caspase-3, CPP32, Cysteine Protease CPP32, PARP Cleavage Protease, Protein Yama
Immunogen:	Synthetic peptide corresponding to human caspase-3 subunit p17
Cross Reactivity:	(+) Caspase-3
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	\geq 1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM250
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:1,000-1:2,500 and 1:1,000-1:2,000 for IHC and WB, respectively. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: Jurkat cell lysates untreated
Lane 2: Jurkat cell lysates treated

WB of Jurkat cell lysates treated with etoposide or left untreated using Caspase-3 Rabbit Monoclonal Antibody at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human breast cancer tissue using Caspase-3 Rabbit Monoclonal Antibody at a dilution of 1:2,500.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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Description

Caspase-3 is a cysteinyl aspartic protease with roles in both extrinsic and intrinsic apoptosis.^{1,2} Upon apoptotic signaling *via* death receptors or mitochondrial assembly of pro-apoptotic factors, the zymogen procaspase-3 is cleaved into two subunits, p17 and p12, which form an active heterodimer that recognizes and cleaves proteins containing the canonical peptide sequence DEVD to drive apoptosis.^{3,4} Substrates for caspase-3 include the death substrate poly(ADP-ribose) polymerase (PARP), DNA-PK, actin, GAS2, and procaspase-6.^{5,6} The percentage of caspase-3-positive neurons is positively correlated with dopaminergic neuronal loss in the substantia nigra pars compacta of postmortem brains from patients with Parkinson's disease, as well as several animal models of chronic neurodegenerative disorders.⁷ Cardiac levels of caspase-3 are increased in patients with ventricular arrhythmia, and activated caspase-3 is found in myocardium isolated from patients with end-stage heart failure.⁸ Cayman's Caspase-3 Rabbit Monoclonal Antibody (Clone RM250) can be used for immunohistochemistry (IHC) and Western blot (WB) applications. The antibody recognizes the p17 subunit to detect caspase-3 in human samples.

References

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