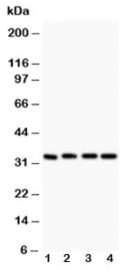
Caspase-3 Antibody (R30947)

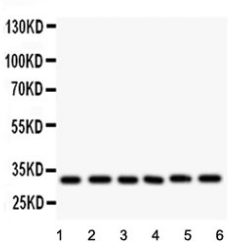
Catalog No.	Formulation	Size
R30947	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P42574
Applications	Western blot: 0.5-1ug/ml
Limitations	This Caspase-3 antibody is available for research use only.



Western blot testing of Caspase-3 antibody (0.5ug/ml) and Lane 1: rat liver; 2: MCF-7; 3: SMMC-7721; 4: HT1080 lysate. Predicted molecular weight ~31 kDa.



Western blot testing of 1) rat heart, 2) rat liver, 3) rat thymus, 4) MCF7, 5) SMMC and 6) HT1080 lysate with Caspase-3 antibody. Predicted molecular weight ~31 kDa.

Description

Cysteine-aspartic acid protease 3, also known as Apopain, CPP32, CPP32B, and YAMA, is a member of the cysteine-aspartic acid protease family. Western blot analysis of three cell lines revealed the prominent CASP3 band at 32 kD and 20 kD. Several human cancer cell lines showed coexpression of both variants at the mRNA and protein levels. Overexpression of the catalytically inactive Caspase-3 by human kidney cells offered some resistance to inducers of apoptosis, and CASP3 accumulation could be enhanced with addition of proteasome inhibitors. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Alternative splicing of this gene results in two transcript variants that encode the same protein. Orthologs have been identified in numerous mammals for which complete genome data are available. Unique orthologs are also present in birds, lizards, lissamphibians, and teleosts. Nicholson et al. developed a potent peptide aldehyde inhibitor and showed that it prevented apoptotic events in vitro, suggesting that the protein is important for the initiation of apoptotic cell death.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Caspase-3 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Amino acids 207-220 (RNSKDGSWFIQSLC-human) were used as the immunogen for this Caspase-3 antibody (100% mouse homology). This amino acid sequence is from the small subunit.

Storage

After reconstitution, the Caspase-3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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