Product Datasheet

pro Caspase 3 Rabbit mAb

Catalog No: #48686

Package Size: #48686-1 50ul #48686-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	pro Caspase 3 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal
Clone No.	SZ02-08
Purification	Affinity-chromatography
Applications	WB, ICC/IF, IHC, IP, FC
Species Reactivity	Human;Mouse
Immunogen Description	A synthesized peptide derived from human Caspase 3
Conjugates	Unconjugated
Other Names	CASP3 antibody Caspase 3 antibody Caspase 3 apoptosis related cysteine peptidase antibody CPP32 antibody CPP32B antibody Procaspase 3 antibody SCA 1 antibody SCA1 antibody Yama antibody Yama protein antibody
Accession No.	Swiss-Prot#:P42574
Calculated MW	35 kDa
Concentration	1.1mg/ml
Formulation	Rabbit IgG in 10mM phosphate buffered saline , pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
Storage	Store at +4°C for short term. Store at -20°C for long term. Avoid freeze/thaw cycle.

Application Details

WB 1:1000-1:2000

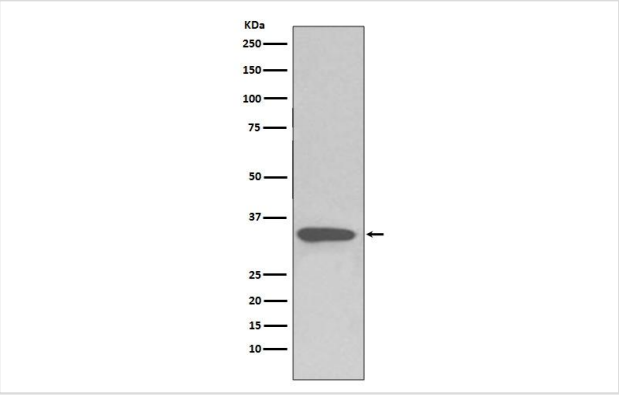
IHC 1:100-1:200

ICC/IF 1:50-1:200

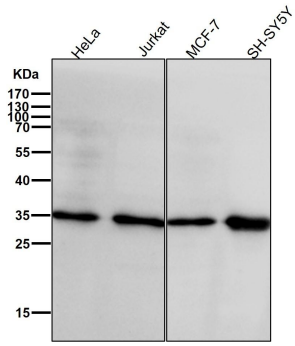
IP 1:20-1:50

FC 1:20-1:100

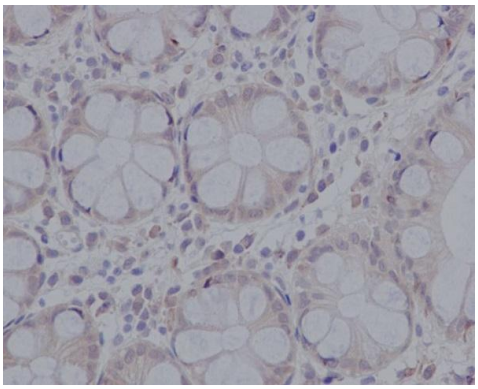
Images



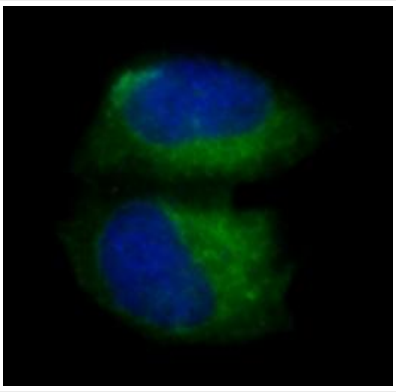
Western blot analysis of pro Caspase 3 expression in Jurkat cell lysate.



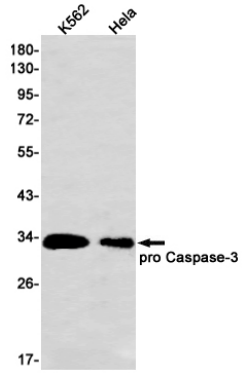
All lanes use the Antibody at 1:2K dilution for 1 hour at room temperature.



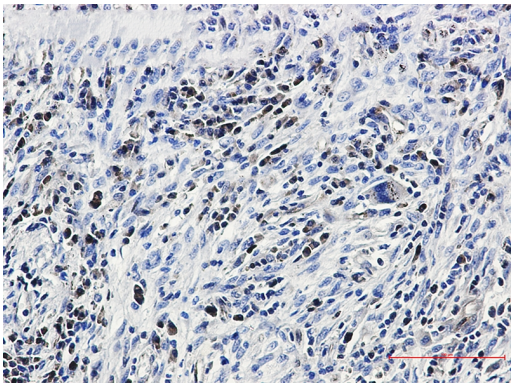
Immunohistochemical analysis of paraffin-embedded human colon, using pro Caspase 3 Antibody.



Immunofluorescent analysis of Hela cells, using pro Caspase 3 Antibody.



Western blot detection of Caspase-3 in K562,Hela cell lysates using Caspase-3 Rabbit mAb(1:1000 diluted).Predicted band size:32kDa.Observed band size:32kDa.



Immunohistochemistry of Caspase-3 in paraffin-embedded Human lung cancer tissue using Caspase-3 Rabbit mAb at dilution 1/20

Background

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.

References

1. Abdi J et al. Stimulation of Toll-like receptor-1/2 combined with Velcade increases cytotoxicity to human multiple myeloma cells. Blood Cancer J 3:e119 (2013).
2. Nilsonne G et al. Phenotype-dependent apoptosis signalling in mesothelioma cells after selenite exposure. J Exp Clin Cancer Res 28:92 (2009).

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PMID:35390677

Note: This product is for in vitro research use only and is not intended for use in humans or animals.