

Background

X linked inhibitor of apoptosis (XIAP) is a member of the inhibitor of apoptosis (IAP) family of proteins, and is involved in regulating programmed cell death by caspase inhibition. SMAC/DIABLO (second mitochondria derived activator of caspase/direct IAP binding protein with low PI) is expressed in a variety of tissues, and has been identified as a negative regulator of XIAP. A functionally active nine-residue peptide derived from the N terminus of Smac/DIABLO interacts with the baculovirus IAP repeat 3 domain of XIAP. Smac/DIABLO promotes caspase activation in the cytochrome c/Apaf-1/caspase-9 pathway by binding to IAPs and removing their inhibitory activity. Smac/DIABLO is normally a mitochondrial protein but is released into the cytosol when cells undergo apoptosis.



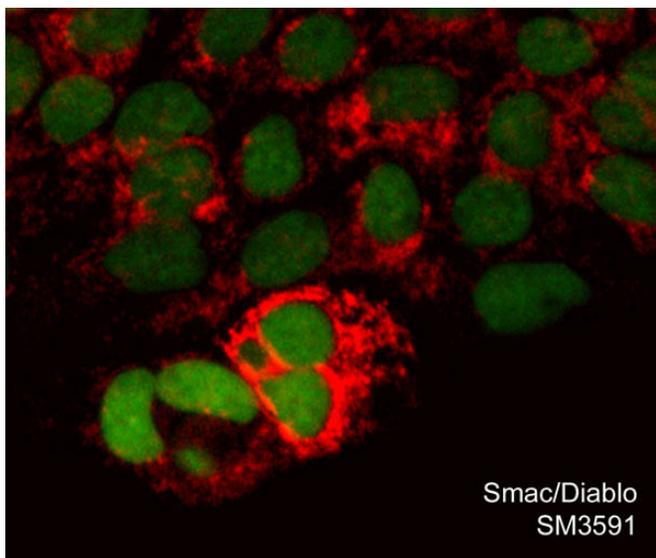
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Background References

Du, C. et al. (2000) Cell 102:33.

Liu, Z. et al. (2000) Nature 408:1004.

Verhagen, A.M. et al. (2000) Cell 102:43.



Immunocytochemical labeling of Smac/Diablo in aldehyde-fixed and NP-40-permeabilized A431 cells. The cells were labeled with mouse monoclonal Smac/Diablo (C-terminal region) antibody, then the antibody was detected using appropriate secondary antibody conjugated to DyLight® 594. The cells were counterstained with Sytox green to label nuclei.



Western blot analysis of Smac/DIABLO expression in A431 cell lysate. The blots were probed with mouse monoclonal Smac/DIABLO (C-terminal region) at 1:500 (lane 1) or 1:2000 (lane 2).

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Immunogen**Uniprot ID: Q9NR28**

Clone M359 was generated from a recombinant protein that included amino acid residues within the C-terminal region of human Smac/DIABLO. This sequence has high homology with similar regions in rat and mouse Smac/DIABLO.

Buffer and Storage

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

Applications

WB	1:1000
ELISA	1:2000
ICC	1:100

Species Reactivity

Hu, Rt, Ms

Isotype: IgG1

End user should determine optimal dilution for their particular applications and experiments.

Western blot membranes were incubated with diluted antibody in 5% non-fat milk, Tris buffer, 0.04% Tween20 for 1 hour at room temperature.

Abbreviations: ELISA (Cap) = ELISA capture, ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, WB = western blot

Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine

Specificity

The antibody detects a 23 kDa* band corresponding to the molecular weight of Smac/DIABLO on SDS-PAGE immunoblots of A431 cells.

*All molecular weights (MW) are confirmed by comparison to MW standards and to western blot mobilities of known proteins with similar MW.

"Native" western blot utilizes non-reducing sample buffer (no mercaptoethanol or SDS), normal SDS-PAGE gel electrophoresis, and no methanol in transfer buffers.

Related Products

AK6060 Actin & Tubulin Antibody Sampler Kit

GM3421 GM130 (C-terminal region) Mouse Monoclonal

EM3471 Early Endosome Antigen 1 (EEA1) Mouse Monoclonal

AL9171 A431 Lysate

MS3001 Anti-Mouse Ig:HRP Donkey Polyclonal

RS3251 Anti-Rabbit Ig Light-Chain Specific:HRP Mouse Monoclonal



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