

Smac Antibody
Catalog # ASC10132**Specification**

Smac Antibody - Product Information

Application	WB, IHC
Primary Accession	O9JIO3
Other Accession	NP_063940 , 66593
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 26 kDa

Application Notes	Observed: 25 kDa KDa Smac antibody can be used for detection of Smac/DIABLO by Western blot at 1 µg/mL. Smac antibody can also be used to detect Smac/DIABLO by immunohistochemistry at 5 µg/mL.
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Smac Antibody - Additional Information

Gene ID **66593**

Other Names

Smac Antibody: Smac, AU040403, 0610041G12Rik, 1700006L01Rik, Smac, Diablo homolog, mitochondrial, Direct IAP-binding protein with low pI, diablo homolog (Drosophila)

Target/Specificity

Smac antibody was raised against a 15 amino acid peptide near the carboxy terminus of human Smac.

The immunogen is located within the last 50 amino acids of Smac.

Reconstitution & Storage

Smac antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

Smac Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Smac Antibody - Protein Information

Name Diablo {ECO:0000312|MGI:MGI:1913843}

Function

Promotes apoptosis by activating caspases in the cytochrome c/Apaf-1/caspase-9 pathway. Acts by opposing the inhibitory activity of inhibitor of apoptosis proteins (IAP). Inhibits the activity of BIRC6/bruce by inhibiting its binding to caspases (By similarity).

Cellular Location

Mitochondrion. Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q9NR28}. Note=Released into the cytosol in a PARL-dependent manner when cells undergo apoptosis {ECO:0000250|UniProtKB:Q9NR28}

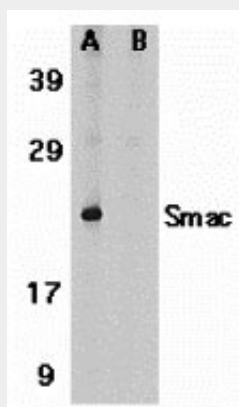
Tissue Location

Highest expression found in heart, liver, kidney and testis.

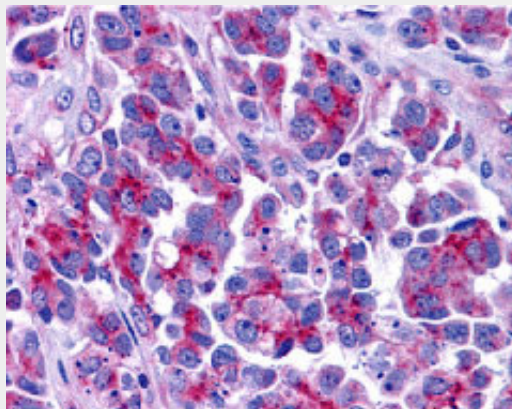
Smac Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Smac Antibody - Images

Western blot analysis of Smac in human heart tissue lysate in the absence (A) or presence (B) of blocking peptide (2409P) with Smac antibody at 1 µg/mL.



Immunohistochemistry of Smac/DIABLO in human ovary tissue with Smac antibody at 5 µg/mL.

Smac Antibody - Background

Smac Antibody: The inhibitor of apoptosis proteins (IAPs) regulate programmed cell death by inhibiting members of the caspase family of enzymes. A novel mammalian protein that binds to IAPs and neutralizes the inhibitory effect of IAPs on caspases was recently identified and designated Smac/DIABLO. Smac/DIABLO is a mitochondrial protein that is released along with cytochrome c during apoptosis and activates cytochrome c/Apaf-1/caspase-9 pathway. Analysis of the structural basis of Smac/DIABLO reveals that the N-terminal amino acids are required for binding of Smac/DIABLO to IAPs and activation of caspases. Smac/DIABLO is expressed in a variety of human and mouse tissues.

Smac Antibody - References

Du C, Fang M, Li Y, et al. Smac, a mitochondrial protein that promotes cytochrome c-dependent caspase activation by eliminating IAP inhibition. *Cell* 2000; 102:33-42.
Verhagen AM, Ekert PG, Pakusch M, et al. Identification of DIABLO, a mammalian protein that promotes apoptosis by binding to and antagonizing IAP proteins. *Cell* 2000;102:43-53.
Srinivasula SM, Datta P, Fan XJ, et al. Molecular Determinants of the Caspase-promoting Activity of Smac/DIABLO and Its Role in the Death Receptor Pathway. *J. Biol. Chem.* 2000; 275:36152-7.
Chai J, Du C, Wu JW, et al. Structural and biochemical basis of apoptotic activation by Smac/DIABLO. *Nature* 2000; 406:855-62.