

For Research Use Only

# Smac/DIABLO Polyclonal antibody

Catalog Number: 10434-1-AP

Featured Product

17 Publications



## Basic Information

### Catalog Number:

10434-1-AP

### Size:

150ul, Concentration: 400 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG0696

### GenBank Accession Number:

BC011909

### GeneID (NCBI):

56616

### UNIPROT ID:

Q9NR28

### Full Name:

diablo homolog (Drosophila)

### Calculated MW:

27 kDa

### Observed MW:

20 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:2000-1:16000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:50-1:500

IF/ICC: 1:50-1:500

FC (Intra): 0.40 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

### Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

### Cited Applications:

WB, IHC, IF

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, hamster

### Positive Controls:

WB: HEK-293 cells, HeLa cells, HepG2 cells, mouse testis tissue, rat testis tissue

IP: HepG2 cells,

IHC: mouse testis tissue,

IF/ICC: HeLa cells,

FC (Intra): HeLa cells,

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

Smac/DIABLO is a mitochondrial protein that promotes apoptosis by neutralizing members of the IAP family. SMAC/DIABLO is ubiquitously expressed in normal tissues, and the expression of SMAC messenger RNA (mRNA) in adult testis is the highest. Smac/DIABLO encodes a 239 amino acid protein (~27 kDa). The first 55 amino acids are a mitochondrial targeting signal peptide that is cleaved to generate mature Smac-DIABLO (~21 kDa). When released from mitochondria, Smac-DIABLO acts as a natural antagonist of inhibitor of apoptosis proteins (IAPs). Smac-DIABLO antagonistic activity is based on its N-terminal tetrapeptide (AVPI) that binds baculoviral IAP repeat (BIR) domains of IAPs, releasing their inhibitory effects on both initiator and effector caspases, thus promoting cell death. (PMID: 32325691, PMID: 32575872, PMID: 25650938)

## Notable Publications

Author	Pubmed ID	Journal	Application
Hongtao Duan	29151915	Oncol Lett	WB
Tao Zhang	30187480	J Cell Physiol	WB
Yucong Xue	33173965	Mol. Med Rep	IHC

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

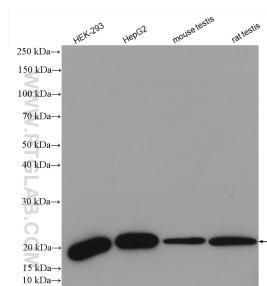
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

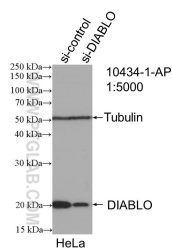
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

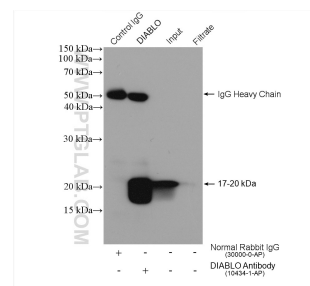
## Selected Validation Data



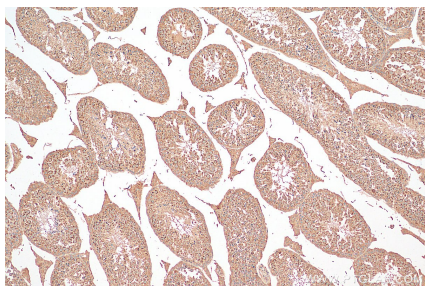
Various lysates were subjected to SDS PAGE followed by western blot with 10434-1-AP (DIABLO antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



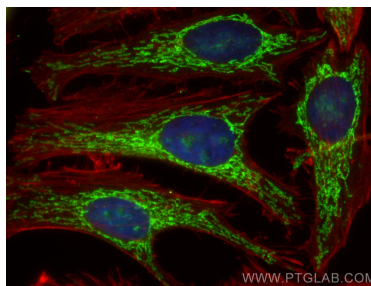
WB result of DIABLO antibody (10434-1-AP; 1:5000; incubated at room temperature for 1.5 hours) with sh-Control and sh-DIABLO transfected HeLa cells.



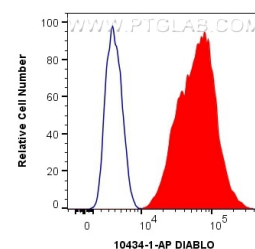
IP result of anti-DIABLO (IP:10434-1-AP, 4ug; Detection:10434-1-AP 1:2000) with HepG2 cells lysate 880 ug.



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 10434-1-AP (DIABLO antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using DIABLO antibody (10434-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.4 ug Anti-Human DIABLO (10434-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).