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Anti-Diablo/SMAC Picoband™ Antibody

Catalog # ABO12546

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9NR28
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Diablo homolog, mitochondrial(DIABLO) detection. Tested with WB, IHC-P, ELISA in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	56616
Other Names	Diablo homolog, mitochondrial, Direct IAP-binding protein with low pI, Second mitochondria-derived activator of caspase, Smac, DIABLO, SMAC
Calculated MW	27131
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat ELISA , 0.1-0.5 □g/ml, Human, - Western blot, 0.1-0.5 □g/ml, Human, Rat
Subcellular Localization	Mitochondrion . Released into the cytosol when cells undergo apoptosis.
Tissue Specificity	Ubiquitously expressed with highest expression in testis. Expression is also high in heart, liver, kidney, spleen, prostate and ovary. Low in brain, lung, thymus and peripheral blood leukocytes. Isoform 3 is ubiquitously expressed. .
Source	Eukaryota
Protein Name	Diablo homolog, mitochondrial
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human Smac/Diablo recombinant protein (Position: A56-D239). Human Smac/Diablo shares 88.6% amino acid (aa) sequence identity with mouse Smac/Diablo.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

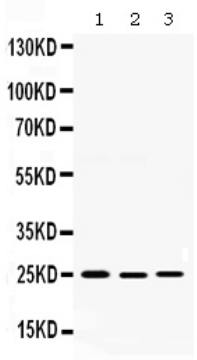
Protein Information

Name	DIABLO (HGNC:21528)
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 (PubMed:15200957, PubMed:36758104, PubMed:36758105, PubMed:36758106).
Cellular Location	Mitochondrion. Cytoplasm, cytosol Note=Released into the cytosol in a PARL-dependent manner when cells undergo apoptosis.
Tissue Location	Ubiquitously expressed with highest expression in testis. Expression is also high in heart, liver, kidney, spleen, prostate and ovary. Low in brain, lung, thymus and peripheral blood leukocytes. Isoform 3 is ubiquitously expressed

Background

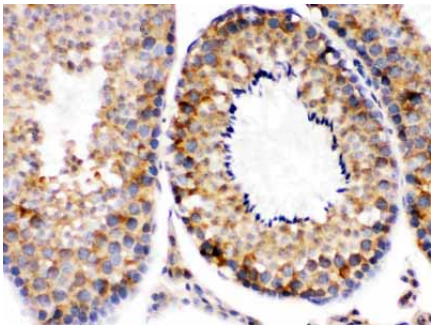
Diablo homolog (DIABLO), also referred to as second mitochondria-derived activator of caspases or SMAC, is a mitochondrial protein that in humans is encoded by the DIABLO (direct IAP binding protein with low pI) gene on chromosome 12. The encoded mitochondrial protein enters the cytosol when cells undergo apoptosis, and allows activation of caspases by binding to inhibitor of apoptosis proteins. Overexpression of the encoded protein sensitizes tumor cells to apoptosis. A mutation in this gene is associated with young-adult onset of nonsyndromic deafness-64. Alternative splicing results in multiple transcript variants encoding different isoforms.

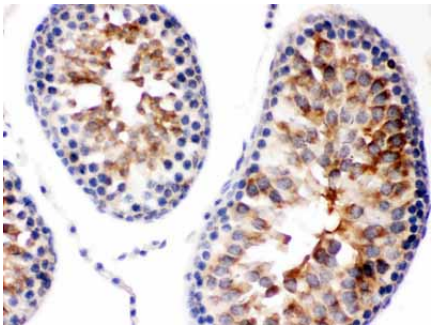
Images



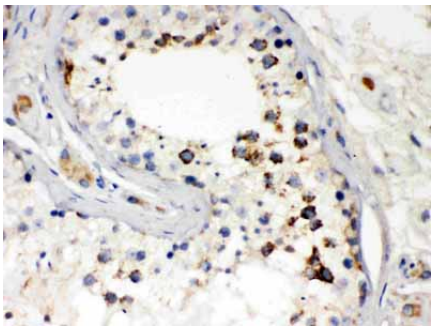
Western blot analysis of Smac/Diablo expression in rat testis extract (lane 1), 22RV1 whole cell lysates (lane 2) and SKOV whole cell lysates (lane 3). Smac/Diablo at 25KD was detected using rabbit anti- Smac/Diablo Antigen Affinity purified polyclonal antibody (Catalog # ABO12546) at0.5 ¼g/mL. The blot was developed using chemiluminescence (ECL) method .

Smac/Diablo was detected in paraffin-embedded sections of mouse testis tissues using rabbit anti- Smac/Diablo Antigen Affinity purified polyclonal antibody (Catalog # ABO12546) at 1 ??g/mL. The immunohistochemical section was developed using SABC method .





Smac/Diablo was detected in paraffin-embedded sections of rat testis tissues using rabbit anti- Smac/Diablo Antigen Affinity purified polyclonal antibody (Catalog # ABO12546) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .



Smac/Diablo was detected in paraffin-embedded sections of human testis tissues using rabbit anti- Smac/Diablo Antigen Affinity purified polyclonal antibody (Catalog # ABO12546) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .