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Rabbit Anti-Smac/Cy5.5 Conjugated antibody

SL0667R-Cy5.5

Product Name	Anti-Smac/Cy5.5
Chinese Name	Cy5.5 标记的 Mitochondrion 促凋亡蛋白抗体
Alias	Smac / Diablo; 0610041G12Rik; DBLOH_HUMAN; DBOH; DBOH; diablo; Diablo homolog (Drosophila); Diablo homolog (Drosophila); Diablo homolog; Diablo homolog Drosophila; Diablo homolog mitochondrial; Diablo homolog mitochondrial precursor; DIABLO S; DIABLO S; DIABLOS; Direct IAP binding protein with low pI; Direct IAP-binding protein with low pI; FLJ10537; FLJ25049; mitochondrial; Mitochondrial Smac protein; Second Mitochondria Derived Activator of Caspase; Second mitochondria-derived activator of caspase; SMAC 3; smac; Smac protein; SMAC3.
Research Area	Tumour Cell biology Apoptosis The new supersedes the old Mitochondrion
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse(predicted:Rat)
Applications	ICC=1:50-200 IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	21kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Smac
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:**

This gene encodes an inhibitor of apoptosis protein (IAP)-binding protein. The encoded mitochondrial protein enters the cytosol when cells undergo apoptosis, and it moderates the caspase inhibition of IAPs. Multiple polyadenylation sites have been found for this gene. Several alternatively spliced transcript variants that encode distinct isoforms have been described for this gene but the validity of some transcripts, and their predicted ORFs, has not been determined conclusively. The inhibitor of apoptosis (IAP) proteins regulate programmed cell death by inhibiting members of the caspase family of enzymes. A novel mammalian protein that binds to IAPs and neutralizes their inhibitory effect on caspases has been designated Smac/DIABLO. This is a mitochondrial protein that is released along with cytochrome c during apoptosis and activates the 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.

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. Isoform 3 attenuates the stability and apoptosis-inhibiting activity of XIAP/BIRC4 by promoting XIAP/BIRC4 ubiquitination and degradation through the ubiquitin-proteasome pathway. Isoform 3 also disrupts XIAP/BIRC4 interacting with processed caspase-9 and promotes caspase-3 activation. Isoform 1 is defective in the capacity to down-regulate the XIAP/BIRC4 abundance.

Subunit:
Homodimer. Interacts with NGFRAP1/BEX3 (By similarity). Interacts with BIRC2/c-IAP1, BIRC3/c-IAP2, XIAP/BIRC4, BIRC6/bruce and BIRC7/livin. Interacts with the monomeric and dimeric form of BIRC5/survivin.

Subcellular Location:
Mitochondrion. Note=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.

Post-translational modifications:
Ubiquitinated by BIRC7/livin.

DISEASE:
Deafness, autosomal dominant, 64 (DFNA64) [MIM:614152]: A form of non-syndromic sensorineural hearing loss. Sensorineural deafness results from damage to the neural receptors of the inner ear, the nerve pathways to the brain, or the area of the brain that receives sound information. Note=The disease is caused by mutations affecting the gene represented in this entry.

Database links:

Entrez Gene: 56616 Human

Entrez Gene: 66593 Mouse

Entrez Gene: 288753 Rat

Omim: 605219 Human

SwissProt: Q9NR28 Human

SwissProt: Q9JIQ3 Mouse

Unigene: 169611 Human

Unigene: 46716 Mouse

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.