Recombinant Protein Technical Manual

Recombinant Human SMAC/Diablo Protein (His Tag)(Active)

RPES4175

Product Data:

Product SKU: RPES4175

Size: 100µg

Species: Human

Expression host: E. coli

Uniprot: NP_063940.1

Protein Information:

Molecular Mass:	22 kDa
AP Molecular Mass:	22 kDa
Tag:	C-His
Bio-activity:	Measured by its binding ability in a functional ELISA. Immobilized recombinant human SMAC-His at 10 µg/ml (100 µl/well) can bind recombinant human XIAP-AVI with a linear range of 0.125.0 µg/ml.
Purity:	> 90 % as determined by reducing SDS-PAGE.
Endotoxin:	Please contact us for more information.
Storage:	Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping:	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation:	Lyophilized from sterile PBS, pH 7.4
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	Functional ELISA
Synonyms:	DFNA64;SMAC

Immunogen Information:

Sequence: Ala 56-Asp 239

Background:

Apoptosis is an essential processes required for normal development and homeostasis of all metazoan organisms. Second Mitochondria-Derived Activator of Caspases (Smac) or Direct IAP Binding Protein with low isoelectric point, pI (Diablo) is a proapoptogenic mitochondrial protein that is released to the cytosol in response to diverse apoptotic stimuli, including commonly used chemotherapeutic drugs. The current knowlege about structure and function of Smac/Diablo during programmed cell death, both in mitochondrial and receptor pathways are presented. It has been shown that Diablo mainly interacts with IAPs in the cytochrome c/Apaf/caspase-9 pathway, and promotes apoptosis. Diablo is released from the mitochondria into the cytosol occurring downstream of cytochrome c release in response to apoptotic stimuli such as irradiation, DNA damage or cytotoxic drugs. In the cytosol, Smac/Diablo interacts and antagonizes inhibitors of apoptosis proteins (IAPs), thus allowing the activation of caspases and apoptosis. This activity has prompted the synthesis of peptidomimetics that could potentially be used in cancer therapy. The role of Smac/DIABLO in colorectal carcinogenesis is ill defined. Data continues to accumulate to suggest that decreased levels of Smac/DIABLO may be important in chemoradiation-resistance to apoptosis in advanced colon cancer.