

## SMAC/Diablo Protein, Human (His)

Cat. No.:	HY-P73416
Synonyms:	SMAC; Diablo homolog, mitochondrial; DIABLO
Species:	Human
Source:	E. coli
Accession:	Q9NR28 (A56-D239)
Gene ID:	56616
Molecular Weight:	Approximately 22 kDa

### PROPERTIES

AA Sequence	<p>           AVPIAQKSEP    HSLSSEALMR    RAVSLVTDST    STFLSQTTYA            LIEAITEYTK    AVYTLTSLYR    QYTSLLGKMN    SEEEDEVQV            IIGARAEMTS    KHQEYLLKET    TWMTAVGLSE    MAAEAAYQTG            ADQASITARN    HIQLVKLQVE    EVHQLSRKAE    TKLAEAQIEE            LRQKTQEEGE    ERAESEQEAY    LRED         </p>
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Human SMAC at 10 µg/mL (100 µL/well) can bind Biotinylated XIAP. The ED <sub>50</sub> for this effect is 0.328 µg/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4 or 50 mM Tris-HCL, 300 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	<p>SMAC/Diablo protein plays a pivotal role in apoptosis by instigating the activation of caspases within the cytochrome c/Apaf-1/caspase-9 pathway. Its mode of action involves counteracting the inhibitory effects of inhibitor of apoptosis proteins (IAP). SMAC/Diablo effectively hinders the activity of BIRC6/bruce by impeding its binding to caspases. Furthermore, it exerts its regulatory influence on XIAP/BIRC4 by diminishing its stability and apoptosis-inhibiting capabilities. This is achieved through the facilitation of XIAP/BIRC4 ubiquitination and subsequent degradation via the</p>
------------	--

---

ubiquitin-proteasome pathway. Notably, SMAC/Diablo disrupts the interaction between XIAP/BIRC4 and processed caspase-9, thereby promoting the activation of caspase-3. In essence, SMAC/Diablo emerges as a key orchestrator in the intricate molecular machinery governing apoptotic processes.

---

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA