



Product Datasheet

Product Name	SMAC/DIABLO Human Recombinant
Cata No	CB501471
Source	<i>Escherichia Coli.</i>
Synonyms	Diablo homolog mitochondrial, Second mitochondria-derived activator of caspase, Smac protein, Direct IAP-binding protein with low pI, DIABLO, SMAC, SMAC3, DIABLO-S, FLJ10537, FLJ25049.

Description

Smac/Diablo is a proapoptotic protein that increases caspase activation in the cytochrome c/Apaf-1/caspase-9 pathway by its binding to the inhibitor of apoptosis proteins (IAPs) and removing their inhibitory activity. Smac/Diablo is a mitochondrial protein which enters the cytosol when cells go through apoptosis, and it moderates the caspase inhibition of IAPs.

Smac/DIABLO expression is associated with the result of renal cell carcinoma.

Dimeric form of Smac/DIABLO implies that once expressed in the cell the protein has a little probability of dissociation and, thus, loss of function. Survivin, Smac/DIABLO, & PKC- α play an important part in the inhibition of apoptosis by FGF-2 in human small cell lung cancer cells. Mitochondrial survivin associates with Smac/DIABLO, delaying its release. Decreased expression of Smac protein takes part in ovarian carcinogenesis and chemotherapeutic resistance. Smac/DIABLO plays a role in tumor cells during the pathway of apoptosis induction. SMAC protein is regulated by XIAP and degraded by proteasome. SMAC protein takes part in leukemic cell apoptosis.

Smac is released during stress-induced apoptosis in multiple myeloma cells.

Smac/Diablo Human Recombinant fused to

N-terminal T7-Tag produced in E.Coli is a single,

non-glycosylated polypeptide chain containing 199 amino acids and having a molecular mass of 22 kDa.

Physical Appearance

Sterile Filtered colorless solution.

Purity

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

Formulation

The Smac/Diablo solution contains 20mM Tris pH-7.5.

Stability

Smac/Diablo although stable 4°C for 4 weeks, should be stored desiccated below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

Sequence

MASMTGGQQM GRGSMVAVPIA QKSEPHSLSS
EALMRRVAVSL VTDSTSTFLS QTTYALIEAI
TEYTKAVYTL TSLYRQYTSI LGKMNSEED
EVWQVIIGAR AEMTSKHQEY LKLETTWMTA
VGLSEMAAEA AYQTGADQAS ITARNHIQLV
KLQVEEVHQL SRKAETKLAE AQIEELRQKT
QEEGEERAES EQEAYLRED.

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