
Product Data Sheet

Product Name: SMAC/DIABLO Human
 Cat. No.: GP24613
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
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.		
Amino Acid Sequence	MASMTGGGQQM GRGSMVAPIA QKSEPHSLSS EALMRRVAVSL VTDSTSTFLS QTTYALIEAI TEYTKAVYTL TSLYRQYTS LKGMNSEEED EVWQVIIGAR AEMTSKHQEY LKLETTWMTA VGLSEMAAEA AYQTGADQAS ITARNHIQLV KLQVEEVHQL SRKAETKLAE AQIEELRQKT QEEGEERAES EQEAYLRED.		
Formulation	The Smac/Diablo solution contains 20mM Tris pH-7.5.		

Introduction

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- ζ 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.

Stability

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

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Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

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.

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