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ProductInformation

XIAP
Human, Recombinant
Expressed in *Escherichia coli*

Product Number **X 3378**

Product Description

XIAP is produced from a DNA sequence corresponding to amino acids 1-497 of human XIAP fused with the amino acid sequence (MATVIDHHHHHHSSNG) at the amino terminus. By immunoblotting, recombinant human full length XIAP migrates as a 58 kDa protein under reducing and non-reducing conditions.

XIAP (X-linked inhibitor of apoptosis protein) is a member of the IAPs (inhibitor of apoptosis proteins) that function in cell death pathways to inhibit programmed cell death.[1] XIAP functions downstream of mitochondrial events to inhibit apoptosis. The IAPs share one to three copies of an approximately 70 amino acid sequence motif, BIR (baculovirus IAP repeat).[2] The BIR domains promote protein-protein interactions with caspases as well as with members of the TRAF family of signal molecules.[3] The BIR2 domain of XIAP inhibits caspase-3 and caspase-7 [4-6] and the BIR3 domain inhibits caspase-9.[7, 8] The ability of XIAP to inhibit caspases is prevented by SMAC-Diablo through binding to XIAP-BIR2 and BIR3.[9] IAPs are widely but differentially expressed in human cancers and leukemias.[10]

Reagent

Recombinant Human XIAP is supplied at approximately 0.224 mg/ml from a 0.2 µm filtered solution in 25 mM HEPES (pH 8.0), 0.1 M sodium chloride, and 1 mM dithiothreitol (DTT).

Storage/Stability

Store at –20 °C. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Do not store in a frost-free freezer.

Product Profile

Inhibition of the fluorogenic caspase substrate, DEVD-afc (N-acetyl-Asp-Glu-Val-Asp-7-amido-4-trifluoramethylcoumarin, Sigma Product No. A 0466) cleavage activities in cell extracts (2 x 10^6 cells) activated by the addition of cytochrome c and dATP, is 100 pM for recombinant human caspase-3 and by 350 pM for recombinant human caspase-7

The typical amount of XIAP required to decrease the rate of DEVD-afc cleavage by 50% in activated cell extracts is between 40-100 nM.

The typical amount of XIAP for inhibition of 50% of recombinant human caspase-3 is between 10 and 200 nM.

The typical amount of XIAP for inhibition of 50% of recombinant human caspase-7 is between 2 and 50 nM.

Note: In order to obtain the best results in various techniques and preparations, we recommend that each laboratory should determining optimal working dilutions.

Purity: >95% as determined by SDS-PAGE, visualized by silver stain.

References

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