

20-1107: Polyclonal antibody to XIAP

Clonality :	Polyclonal
Application :	WB,IHC,IP
Reactivity :	Gerbil,Human,Mouse,Rat
Gene :	XIAP
Gene ID :	331
Uniprot ID :	P98170
Format :	Sera
Alternative Name :	XIAP,API3,BIRC4,IAP3
Isotype :	Rabbit IgG
Immunogen Information :	Recombinant BIR2 domain protein fragment of human XIAP was used as immunogen for this antibody

Description

XIAP [human X-linked IAP, hIAP (human IAP-like protein), MIHA, BIRC4) is a member of the family of inhibitor of apoptosis proteins (IAP). IAPs suppress mitochondria-dependent and independent apoptosis by binding to and inhibiting caspases through their BIR domains (reviewed in Liston et al, 2003; Wright and Duckett, 2005). Resistance towards apoptosis is a hallmark of cancer cells, and overexpression of IAPs can contribute to the development of cancer through inhibiting apoptosis. In addition to at least one BIR domain, some IAP members also have a RING-type finger motif at their carboxyl-terminal. The RING finger domain of several IAPs, including XIAP, have E3 ubiquitin ligase activity and target the degradation of Smac/DIABLO through ubiquitination (Morizane et al, 2005). Smac/DIABLO is a death inducer and functions by inhibiting IAP-caspase interactions, thereby promoting apoptosis. Degradation of cell death inducers like Smac/DIABLO is thought to be a conserved mechanism by which IAPs enhance their anti-apoptotic activity, thereby promoting cell survival. XIAP is highly characterized with respect to its structure and biochemical mechanisms, and has received interest as a therapeutic target (reviewed in Schimmer, 2006). Since XIAP blocks a substantial portion of the apoptosis pathway and is associated with chemoresistance in cancer cells, inhibiting XIAP has been a focus for potential therapeutics. Approaches have included antisense oligonucleotides and small molecule inhibitors. Small molecules that target the BIR2 and BIR3 domains of XIAP are considered particularly attractive. This is because the BIR domains inhibit caspase activity, and it is thought that removing the inhibition should increase the cell's ability to undergo apoptosis as well as decrease its potential for chemoresistance. This antibody recognizes XIAP. Full-length human XIAP is a 497 amino acid protein and migrates at approx. 53 kDa on SDS-PAGE.

Product Info

Amount :	50 µl
Content :	50 µl sera
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

WB: 1:1000-1:2000, IHC (paraffin): 1:1000-1:5000, IHC (frozen): Users should optimize, IP: 1:50-1:200

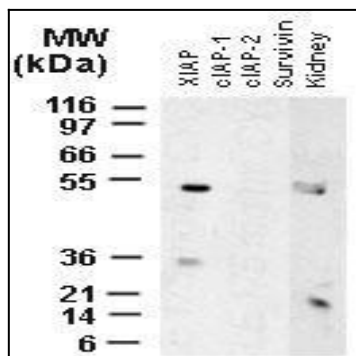


Fig:1 Western blot analysis of XIAP using polyclonal antibody to XIAP (20-1107) at 1:2000. Full-length recombinant XIAP was recognized; the antibody did not but not the other recombinant IAP proteins (e.g. cIAP1, cIAP2, survivin). The antibody detected full-length XIAP in human kidney tissue lysate.

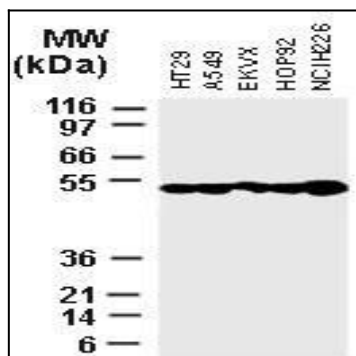


Fig:2 Western blot analysis of XIAP in various tumor cell lines using 20-1107 at 1:2000.

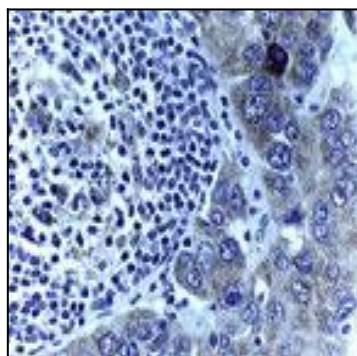


Fig:3 Immunohistochemical analysis of XIAP in formalin-fixed, paraffin-embedded human esophageal carcinoma using 20-1107 at 1:2000. Hematoxylin-eosin counterstain.