10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

XAF-1 Antibody

Catalog # ASC10215

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q6GPH4
Other Accession	CAA68030, 1869901
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	34626
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	XAF-1 antibody can be used for the detection of XAF-1 by Western blot at 0.5 to 2 g/mL. Antibody can also be used for immunohistochemistry starting at 2 g/mL. For immunofluorescence start at 10 g/mL.

Additional Information

Gene ID	54739
Other Names	XAF-1 Antibody: BIRC4BP, XIAPAF1, HSXIAPAF1, BIRC4BP, XIAP-associated factor 1, BIRC4-binding protein, XIAP associated factor 1
Target/Specificity	XAF1;
Reconstitution & Storage	XAF-1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	XAF-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	XAF1
Synonyms	BIRC4BP, XIAPAF1
Function	Seems to function as a negative regulator of members of the IAP (inhibitor of apoptosis protein) family. Inhibits anti-caspase activity of BIRC4. Induces cleavage and inactivation of BIRC4 independent of caspase activation. Mediates TNF-alpha-induced apoptosis and is involved in apoptosis in trophoblast cells. May inhibit BIRC4 indirectly by activating the mitochondrial apoptosis pathway. After translocation to mitochondria, promotes translocation of BAX to mitochondria and cytochrome c release from

	mitochondria. Seems to promote the redistribution of BIRC4 from the cytoplasm to the nucleus, probably independent of BIRC4 inactivation which seems to occur in the cytoplasm. The BIRC4-XAF1 complex mediates down-regulation of BIRC5/survivin; the process requires the E3 ligase activity of BIRC4. Seems to be involved in cellular sensitivity to the proapoptotic actions of TRAIL. May be a tumor suppressor by mediating apoptosis resistance of cancer cells.
Cellular Location	Cytoplasm. Nucleus. Mitochondrion. Note=Found in the cytoplasm and nucleus of placental syncytiotrophoblasts Translocates to mitochondria upon TNF-alpha treatment [Isoform 5]: Nucleus.
Tissue Location	Widely expressed. Expression is frequently down- regulated in cancer cell lines. Isoform 5 is widely expressed Expressed in placenta (at protein level).

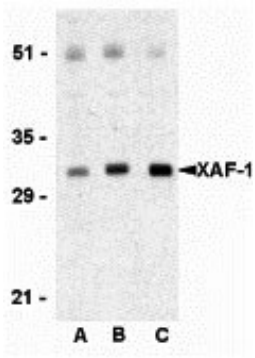
Background

XAF-1 Antibody: XAF-1 binds to XIAP, an inhibitor of caspases-3, -7, and -9, and triggers its relocation from the cytosol to the nucleus. Overexpression of XAF-1 results in the neutralization of XIAP's ability to inhibit cell death. XAF-1 is normally expressed in all adult and fetal tissues but was found to be present in very low levels in a variety of cancer cell lines. In contrast, XIAP levels have been shown to be high in a majority of cell lines. Low XAF-1 and high basal expression of XIAP may therefore play a critical role in maintaining survival of cancer cell lines. Both IFN-alpha2 and IFN-beta can induce XAF-1 mRNA in all cells examined but induction of XAF-1 protein (as observed by immunoblot analysis) was seen only in cell lines sensitive to the apoptotic effects of IFNs.

References

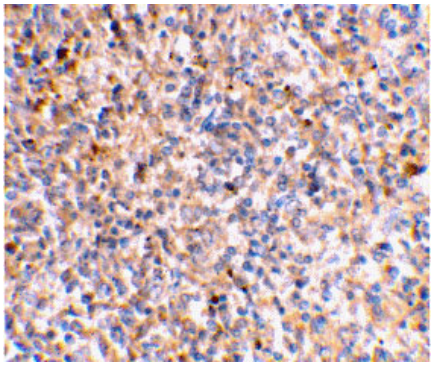
Liston P, Fong W, Kelly NL, et al. Identification of XAF1 as an antagonist of XIAP anticaspase activity. Nature Cell Biol. 2001; 3:128-33.
Deveraux QL, Takahashi R, Savesan GS, and Reed JC. X-linked IAP is a direct inhibitor of cell-death proteases. Nature 1997; 388:300-4.
Fong WG, Liston P, Rajcan-Separovic E, et al. Expression and genetic analysis of XIAP-associated factor 1 (XAF1) in cancer cell lines. Genomics 2000; 70:113-122.
Leaman DW, Chawla-Sarkar M, Vyas K, et al. Identification of X-linked inhibitor of apoptosis associated factor-1 as an interferon-stimulated gene that augments TRAIL/Apo2L-induced apoptosis. J. Biol. Chem. 2002; 277:28504-11.

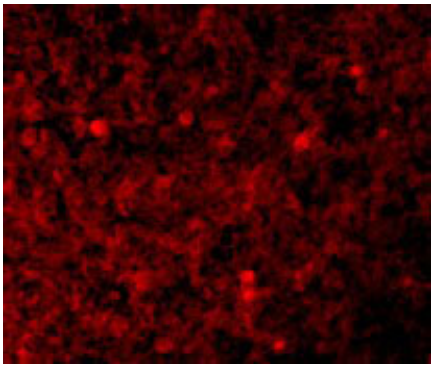
Images



Western blot analysis of XAF-1 in human spleen lysate with XAF-1 antibody at (A) 0.5 , (B) 1 , and (C) 2 µg/mL, respectively.

Immunohistochemical staining of human spleen tissue using XAF-1 antibody at 2 µg/mL.





Immunofluorescence of XAF-1 in Human Spleen tissue with XAF-1 antibody at 10 µg/mL.