SANTA CRUZ BIOTECHNOLOGY, INC.

XAF1 (C-16): sc-19194

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

X-linked inhibitor of apoptosis protein (XIAP)-associated factor 1 (XAF1) is a zinc finger protein that blocks the anti-apoptotic activity of XIAP. XIAP is a member of the family of intrinsic inhibitors of apoptosis proteins (IAPs), which suppress apoptosis through the inhibition of caspases. In the presence of XAF1, XIAP protein redistributes from the cytosol to the nucleus. XAF1 transcripts (3.9-, 4.5-, 6.0- and 7.0-kb) are present at high levels in heart and ovary. Low expression of XAF1 mRNA is an indicator for certain cancers (WM164 melanoma, WM35 melanoma, U937 pro-monocytic leukemia and HT1080 fibrosarcoma), suggesting that low levels of XAF1 transcript may enhance cancer cell-survival through the relative increase in XIAP anti-apoptotic function. IFN-α and IFN-β activate the human XAF1 gene, which maps to chromosome 17p13.1.

CHROMOSOMAL LOCATION

Genetic locus: XAF1 (human) mapping to 17p13.1.

SOURCE

XAF1 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of XAF1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19194 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

XAF1 (C-16) is recommended for detection of XAF1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for XAF1 siRNA (h): sc-37511, XAF1 shRNA Plasmid (h): sc-37511-SH and XAF1 shRNA (h) Lentiviral Particles: sc-37511-V.

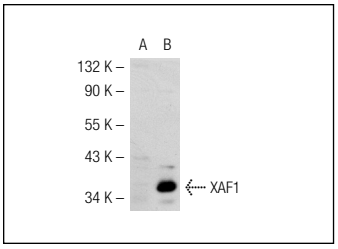
Molecular Weight of XAF1: 35 kDa.

Positive Controls: XAF1 (h): 293T Lysate: sc-111450.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



XAF1 (C-16): sc-19194. Western blot analysis of XAF1 expression in non-transfected: sc-117752 (**A**) and human XAF1 transfected: sc-111450 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Wang, J., et al. 2006. HSF1 down-regulates XAF1 through transcriptional regulation. J. Biol. Chem. 281: 2451-2459.
2. Wang, J., et al. 2006. All-*trans* retinoic acid induces XAF1 expression through an interferon regulatory factor-1 element in colon cancer. Gastroenterology 130: 747-758.
3. Sun, Y., et al. 2008. Regulation of XAF1 expression in human colon cancer cell by interferon β: activation by the transcription regulator STAT1. Cancer Lett. 260: 62-71.
4. Wu, C.H., et al. 2009. *In vitro* and *in vivo* study of phloretin-induced apoptosis in human liver cancer cells involving inhibition of type II glucose transporter. Int. J. Cancer 124: 2210-2219.
5. Wang, J., et al. 2009. c-Jun N-terminal kinase (JNK1) upregulates XIAP-associated factor 1 (XAF1) through interferon regulatory factor 1 (IRF-1) in gastrointestinal cancer. Carcinogenesis 30: 222-229.
6. Wang, J., et al. 2009. Identification of XAF1 as a novel cell cycle regulator through modulating G_2/M checkpoint and interaction with checkpoint kinase 1 in gastrointestinal cancer. Carcinogenesis 30: 1507-1516.
7. Zhang, W., et al. 2010. Identification of a functional p53 responsive element within the promoter of XAF1 gene in gastrointestinal cancer cells. Int. J. Oncol. 36: 1031-1037.
8. Zhang, W., et al. 2011. XIAP-associated factor 1 interacts with and attenuates the *trans*-activity of four and a Half LIM protein 2. Mol. Carcinog. 50: 199-207.