SANTA CRUZ BIOTECHNOLOGY, INC.

FADD (H-181): sc-5559

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

In contrast to growth factors which promote cell proliferation, FAS ligand (FAS-L) and the tumor necrosis factors (TNFs) rapidly induce apoptosis. Cellular response to FAS-L and TNF is mediated by structurally related receptors containing a conserved "death domain" and belonging to the TNF receptor superfamily. TRADD, FADD and RIP are FAS/TNF-R1 interacting proteins that contain a death domain homologous region (DDH). TRADD (TNF-R1-associated death domain) and FADD (FAS-associated death domain) associate with the death domains of both FAS and TNF-R1 via their DDH regions. Overexpression of TRADD leads to NFκB activation and apoptosis in the absence of TNF. Overexpression of FADD causes apoptosis, which can be blocked by the cow pox protein CrmA, suggesting that FADD lies upstream of ICE and possibly other serine proteases. The receptor interacting protein, RIP, associates with FAS exclusively via its DDH and this association is abrogated in lpr mutants. Unlike TRADD and FADD, RIP contains a putative amino-terminal kinase domain.

CHROMOSOMAL LOCATION

Genetic locus: FADD (human) mapping to 11q13.3; Fadd (mouse) mapping to 7 F5.

SOURCE

FADD (H-181) is a rabbit polyclonal antibody raised against amino acids 28-209 mapping at the C-terminus of FADD 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.

Available as agarose conjugate for immunoprecipitation, sc-5559 AC, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

FADD (H-181) is recommended for detection of FADD of mouse, rat and 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), immunohistochemistry (including paraffin-embedded sections) (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 FADD siRNA (h): sc-35352, FADD siRNA (m): sc-35351, FADD shRNA Plasmid (h): sc-35352-SH, FADD shRNA Plasmid (m): sc-35351-SH, FADD shRNA (h) Lentiviral Particles: sc-35352-V and FADD shRNA (m) Lentiviral Particles: sc-35351-V.

Molecular Weight of FADD: 27 kDa.

Positive Controls: FADD (m): 293T Lysate: sc-126821, HeLa whole cell lysate: sc-2200 or SW480 cell lysate: sc-2219.

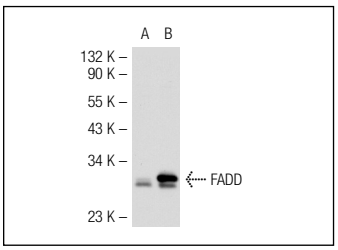
STORAGE

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

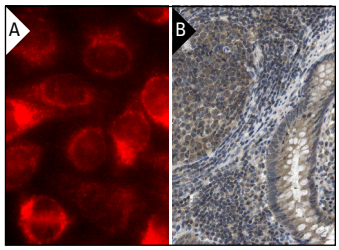
RESEARCH USE

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

DATA



FADD (H-181): sc-5559. Western blot analysis of FADD expression in non-transfected: sc-117752 (**A**) and mouse FADD transfected: sc-126821 (**B**) 293T whole cell lysates.



FADD (H-181): sc-5559. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic staining of glandular and lymphoid cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Chao, W., et al. 2002. Importance of FADD signaling in serum deprivation- and hypoxia-induced cardiomyocyte apoptosis. J. Biol. Chem. 277: 31639-31645.
2. Wang, X., et al. 2010. Changes in the level of apoptosis-related proteins in Jurkat cells infected with HIV-1 versus HIV-2. Mol. Cell. Biochem. 337: 175-183.
3. Sun, J.G., et al. 2011. 3,5-Dimethyl-H-furo[3,2-γ]chromen-7-one as a potential anticancer drug by inducing p53-dependent apoptosis in human hepatoma HepG2 cells. Chemotherapy 57: 162-172.
4. Huang, Y., et al. 2011. UXT-V1 protects cells against TNF-induced apoptosis through modulating complex II formation. Mol. Biol. Cell 22: 1389-1397.
5. Rauert, H., et al. 2011. TNFR1 and TNFR2 regulate the extrinsic apoptotic pathway in myeloma cells by multiple mechanisms. Cell Death Dis. 2: e194.
6. García-Fuster, M.J., et al. 2011. Decreased proliferation of adult hippocampal stem cells during cocaine withdrawal: possible role of the cell fate regulator FADD. Neuropsychopharmacology 36: 2303-2317.
7. Koshkina, N.V., et al. 2011. Effect of the histone deacetylase inhibitor SNDX-275 on Fas signaling in osteosarcoma cells and the feasibility of its topical application for the treatment of osteosarcoma lung metastases. Cancer 117: 3457-3467.
8. Bogazzi, F., et al. 2011. Cardiac extrinsic apoptotic pathway is silent in young but activated in elder mice overexpressing bovine GH: interplay with the intrinsic pathway. J. Endocrinol. 210: 231-238.
9. Ndour, P.A., et al. 2012. Inhibition of latent membrane protein 1 impairs the growth and tumorigenesis of latency II Epstein-Barr virus-transformed T cells. J. Virol. 86: 3934-3943.
10. Gupta, K., et al. 2012. Green tea polyphenols induce p53-dependent and p53-independent apoptosis in prostate cancer cells through two distinct mechanisms. PLoS ONE 7: e52572.