SANTA CRUZ BIOTECHNOLOGY, INC.

FAF1 (E-4): sc-393965

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-RI interacting proteins that contain a death domain homologous region (DDH). TRADD (TNF-RI-associated death domain) and FADD (FAS-associated death domain) associate with the death domains of both FAS and TNF-RI via their DDH regions, while RIP associates exclusively with FAS. An additional FAS interacting protein designated FAF1, for FAS-associated protein factor-1, binds with the cytoplasmic tail of wild type but not lpr mutant FAS. When overexpressed in cells, FAF1 enhances the efficiency of FAS-mediated apoptosis. In contrast to TRADD, FADD and RIP, FAF1 lacks a DDH and cannot induce apoptosis independently of FAS activation.

REFERENCES

1. Nagata, S., et al. 1995. The FAS death factor. Science 267: 1449-1456.
2. Sato, T., et al. 1995. FAP-1: a protein tyrosine phosphatase that associates with FAS. Science 268: 411-414.
3. Cleveland, J.L., et al. 1995. Contenders in FasL/TNF death signaling. Cell 81: 479-482.
4. Hsu, H., et al. 1995. The TNF receptor 1-associated protein TRADD signals cell death and NFκB activation. Cell 81: 495-504.

CHROMOSOMAL LOCATION

Genetic locus: FAF1 (human) mapping to 1p32.3; Faf1 (mouse) mapping to 4 C7.

SOURCE

FAF1 (E-4) is a mouse monoclonal antibody raised against amino acids 182-480 mapping within an internal region of FAF1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FAF1 (E-4) is available conjugated to agarose (sc-393965 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393965 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393965 PE), fluorescein (sc-393965 FITC), Alexa Fluor® 488 (sc-393965 AF488), Alexa Fluor® 546 (sc-393965 AF546), Alexa Fluor® 594 (sc-393965 AF594) or Alexa Fluor® 647 (sc-393965 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393965 AF680) or Alexa Fluor® 790 (sc-393965 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

FAF1 (E-4) is recommended for detection of FAF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 FAF1 siRNA (h): sc-37520, FAF1 siRNA (m): sc-37521, FAF1 shRNA Plasmid (h): sc-37520-SH, FAF1 shRNA Plasmid (m): sc-37521-SH, FAF1 shRNA (h) Lentiviral Particles: sc-37520-V and FAF1 shRNA (m) Lentiviral Particles: sc-37521-V.

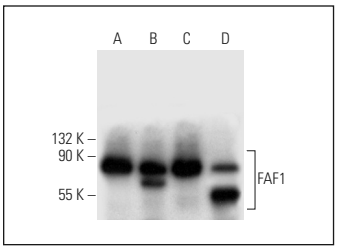
Molecular Weight of FAF1: 75-80 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or Y79 cell lysate: sc-2240.

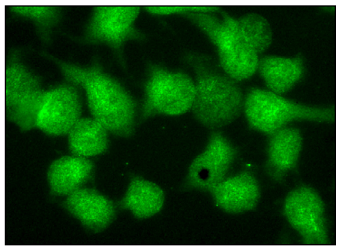
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



FAF1 (E-4): sc-393965. Western blot analysis of FAF1 expression in HeLa (**A**), A-431 (**B**) and Y79 (**C**) whole cell lysates and human kidney tissue extract (**D**).



FAF1 (E-4): sc-393965. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Kim, T.H., et al. 2019. FAS-associated factor 1 mediates NADPH oxidase-induced reactive oxygen species production and proinflammatory responses in macrophages against *Listeria* infection. PLoS Pathog. 15: e1008004.
2. Wang, D., et al. 2021. ATM-phosphorylated SPOP contributes to 53BP1 exclusion from chromatin during DNA replication. Sci. Adv. 7: eabd9208.

RESEARCH USE

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