

FADD (F-12): sc-166516

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 NF κ B 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.

REFERENCES

1. Smith, C.A., et al. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation and death. *Cell* 76: 959-962.
2. Nagata, S., et al. 1995. The FAS death factor. *Science* 267: 1449-1456.

CHROMOSOMAL LOCATION

Genetic locus: *Fadd* (mouse) mapping to 7 F5.

SOURCE

FADD (F-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 180-205 at the C-terminus of FADD of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-166516 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

FADD (F-12) is recommended for detection of FADD of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 FADD siRNA (m): sc-35351, FADD shRNA Plasmid (m): sc-35351-SH and FADD shRNA (m) Lentiviral Particles: sc-35351-V.

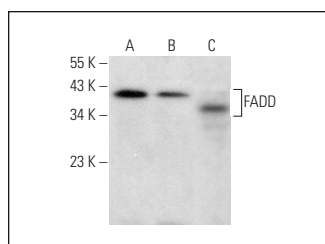
Molecular Weight of FADD: 27 kDa.

Positive Controls: TK-1 whole cell lysate: sc-364798, c4 whole cell lysate: sc-364186 or FADD (m): 293T Lysate: sc-126821.

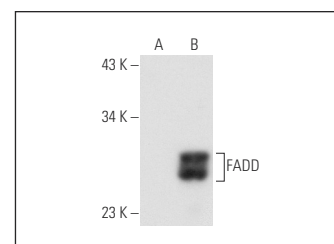
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



FADD (F-12): sc-166516. Western blot analysis of FADD expression in TK-1 (A), c4 (B) and A-431 (C) whole cell lysates.



FADD (F-12): sc-166516. Western blot analysis of FADD expression in non-transfected: sc-117752 (A) and mouse FADD transfected: sc-126821 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chang Lee, S.N., et al. 2016. Protective effects of electroacupuncture at LR3 on cardiac hypertrophy and apoptosis in hypertensive rats. *Acupunct. Med.* 34: 201-208.
2. Zheng, Z., et al. 2021. The lysosomal rag-ragulator complex licenses RIPK1 and caspase-8-mediated pyroptosis by *Yersinia*. *Science* 372: eabg0269.
3. Li, M., et al. 2022. Gasdermin D maintains bone mass by rewiring the endo-lysosomal pathway of osteoclastic bone resorption. *Dev. Cell.* E-published.

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.

PROTOCOLS

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



See **FADD (G-4): sc-271748** for FADD antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.