SANTA CRUZ BIOTECHNOLOGY, INC.

TRADD (H-278): sc-7868

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. Over-expression of TRADD leads to NFκB activation and apoptosis in the absence of TNF. Overexpression of FADD causes apoptosis, which can be blocked by the bovine 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: TRADD (human) mapping to 16q22.1; Tradd (mouse) mapping to 8 D3.

SOURCE

TRADD (H-278) is a rabbit polyclonal antibody raised against amino acids 35-312 mapping at the C-terminus of TRADD 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.

APPLICATIONS

TRADD (H-278) is recommended for detection of TRADD 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TRADD (H-278) is also recommended for detection of TRADD in additional species, including canine.

Suitable for use as control antibody for TRADD siRNA (h): sc-36709, TRADD siRNA (m): sc-37276, TRADD shRNA Plasmid (h): sc-36709-SH, TRADD shRNA Plasmid (m): sc-37276-SH, TRADD shRNA (h) Lentiviral Particles: sc-36709-V and TRADD shRNA (m) Lentiviral Particles: sc-37276-V.

Molecular Weight of TRADD: 34 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HL-60 whole cell lysate: sc-2209 or K-562 whole cell lysate: sc-2203.

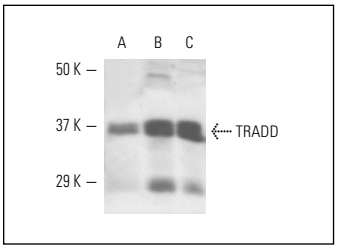
STORAGE

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

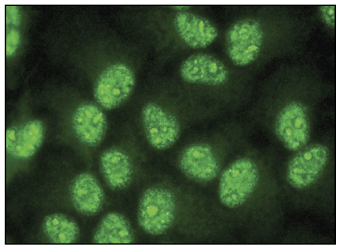
RESEARCH USE

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

DATA



TRADD (H-278): sc-7868. Western blot analysis of TRADD expression in HeLa (**A**), HL-60 (**B**) and K-562 (**C**) whole cell lysates.



TRADD (H-278): sc-7868. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Soond, S.M., et al. 2003. TRUSS, a novel tumor necrosis factor receptor 1 scaffolding protein that mediates activation of the transcription factor NFκB. Mol. Cell. Biol. 23: 8334-8344.
2. Cho, H.Y., et al. 2007. Signal transduction pathways of tumor necrosis factor-mediated lung injury induced by ozone in mice. Am. J. Respir. Crit. Care Med. 175: 829-839.
3. Foley, C.J., et al. 2008. Dynamics of RASSF1A/MOAP-1 association with death receptors. Mol. Cell. Biol. 28: 4520-4535.
4. Pobezinskaya, Y.L., et al. 2008. The function of TRADD in signaling through tumor necrosis factor receptor 1 and TRIF-dependent Toll-like receptors. Nat. Immunol. 9: 1047-1054.
5. Guan, Y.J., et al. 2011. Phospho-SXXE/D motif mediated TNF receptor 1-TRADD death domain complex formation for T cell activation and migration. J. Immunol. 187: 1289-1297.
6. 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.
7. Vanlangenakker, N., et al. 2011. TNF-induced necroptosis in L929 cells is tightly regulated by multiple TNFR1 complex I and II members. Cell Death Dis. 2: e230.
8. Peng, B., et al. 2012. Microarray-assisted pathway analysis identifies MT1X & NFκB as mediators of TCRP1-associated resistance to cisplatin in oral squamous cell carcinoma. PLoS ONE 7: e51413.