SANTA CRUZ BIOTECHNOLOGY, INC.

TRADD (C-20): sc-1163

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 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.

SOURCE

TRADD (C-20) is an affinity purified goat polyclonal antibody raised against a peptide 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.

Blocking peptide available for competition studies, sc-1163 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRADD (C-20) is recommended for detection of TRADD 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), 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).

TRADD (C-20) is also recommended for detection of TRADD in additional species, including equine and canine.

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

Molecular Weight of TRADD: 34 kDa.

Positive Controls: Ramos cell lysate: sc-2216, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

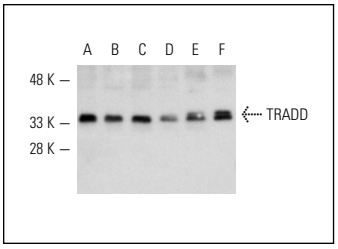
STORAGE

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

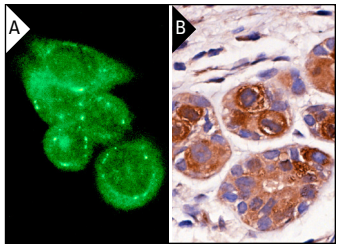
RESEARCH USE

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

DATA



TRADD (C-20): sc-1163. Western blot analysis of TRADD expression in Ramos (**A**), BJAB (**B**), Jurkat (**C**), HL-60 (**D**), K-562 (**E**) and HeLa (**F**) whole cell lysates.



TRADD (C-20): sc-1163. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic staining (**A**). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lung tumor showing cytoplasmic staining (**B**).

SELECT PRODUCT CITATIONS

1. Vassilev, A., et al. 1999. Bruton's tyrosine kinase as an Inhibitor of the FAS/CD95 death-inducing signaling complex. J. Biol. Chem. 274: 1646-1656.
2. Bulfone-Paus, S., et al. 1999. Death deflected: IL-15 inhibits TNFα-mediated apoptosis in fibroblasts by TRAF2 recruitment to the IL-15Rα chain. FASEB J. 13: 1575-1585.
3. Krämer, O.H., et al. 2008. Histone deacetylase inhibitors and hydroxyurea modulate the cell cycle and cooperatively induce apoptosis. Oncogene 27: 732-740.
4. Pajak, B., et al. 2008. Bisindolylmaleimide IX facilitates extrinsic and initiates intrinsic apoptosis in TNF-α-resistant human colon adenocarcinoma COLO 205 cells. Apoptosis 13: 509-522.
5. Reuter, S., et al. 2009. Tumor necrosis factor α induces γ-glutamyltransferase expression via nuclear factor-κB in cooperation with Sp1. Biochem. Pharmacol. 77: 397-411.
6. Pajak, B., et al. 2009. Sodium butyrate sensitizes human colon adenocarcinoma COLO 205 cells to both intrinsic and TNF-α-dependent extrinsic apoptosis. Apoptosis 14: 203-217.
7. Ndour, P.A., et al. 2010. Inhibition of tumor necrosis factor-induced phenotypes by short intracellular versions of latent membrane protein-1. Cell. Signal. 22: 303-313.
8. 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.