

dcTRAILR1 (N-18): sc-46905

BACKGROUND

TRAILR1 and TRAILR2, receptors for the tumor necrosis factor-related apoptosis-inducing ligand (TRAIL), are members of the tumor necrosis factor (TNF) family of cytokines and induce apoptosis in a broad range of cells. The two function as dosage-dependent tumor suppressors, and both TRAILR1 and TRAILR2 activate a caspase-dependent apoptotic pathway. Unlike TRAILR1, TRAILR2 mediates apoptosis via the intracellular adaptor molecule FADD/MORT1. Since TRAIL triggers apoptosis in tumor cells without toxicity to normal cells, these proteins are implicated in the treatment of cancer, especially for patients whose disease is in relapse. Decoy TRAIL receptor 1 (or dcTRAILR1) is a receptor for the cytotoxic ligand TRAIL. dcTRAILR1 lacks a cytoplasmic death domain and so is not capable of inducing apoptosis or the NF κ B pathway. dcTRAILR1 may protect cells against TRAIL-mediated apoptosis through ligand competition.

REFERENCES

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2. Neznanov, N., et al. 2002. Unstable receptors disappear from cell surface during poliovirus infection. *Med. Sci. Monit.* 8: 391-396.
3. Petit, F., et al. 2002. Productive HIV-1 infection of primary CD4⁺ T cells induces mitochondrial membrane permeabilization leading to a caspase-independent cell death. *J. Biol. Chem.* 277: 1477-1487.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603598. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Harper, N., et al. 2003. FAS-associated death domain protein and caspase-8 are not recruited to the tumor necrosis factor receptor 1 signaling complex during tumor necrosis factor-induced apoptosis. *J. Biol. Chem.* 278: 25534-25541.
6. MacFarlane, M., et al. 2005. TRAIL receptor-selective mutants signal to apoptosis via TRAILR1 in primary lymphoid malignancies. *Cancer Res.* 65: 11265-11270.
7. Rubio-Moscardo, F., et al. 2005. Characterization of 8p21.3 chromosomal deletions in B cell lymphoma: TRAILR1 and TRAILR2 as candidate dosage-dependent tumor suppressor genes. *Blood* 106: 3214-3222.
8. Menoret, E., et al. 2006. Mcl-1_L cleavage is involved in TRAILR1- and TRAILR2-mediated apoptosis induced by HGS-ETR1 and HGS-ETR2 human mAbs in myeloma cells. *Blood* 108: 1346-1352.

CHROMOSOMAL LOCATION

Genetic locus: Tnfrsf23 (mouse) mapping to 7 F5.

SOURCE

dcTRAILR1 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of dcTRAILR1 of mouse origin.

RESEARCH USE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-46905 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

dcTRAILR1 (N-18) is recommended for detection of dcTRAILR1 of mouse origin by Western Blotting (starting dilution 1:200, 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 dcTRAILR1 siRNA (m): sc-60512, dcTRAILR1 shRNA Plasmid (m): sc-60512-SH and dcTRAILR1 shRNA (m) Lentiviral Particles: sc-60512-V.

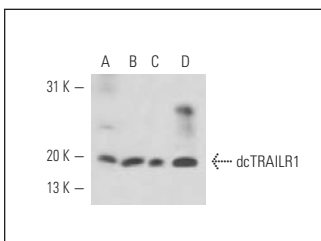
Molecular Weight of dcTRAILR1: 20 kDa.

Positive Controls: mouse spleen extract: sc-2391, BW5147 cell lysate: sc-3800 or RAW 264.7 whole cell lysate: sc-2211.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



dcTRAILR1 (N-18): sc-46905. Western blot analysis of dcTRAILR1 expression in mouse PBL (A), RAW 264.7 (B) and BW5147 (C) whole cell lysates and mouse spleen tissue extract (D).

STORAGE

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