

DR4 (L-20): sc-31344

BACKGROUND

Tumor necrosis factor (TNF) is a pleiotropic cytokine whose function is mediated by two distinct cell surface receptors, designated TNF-R1 and TNF-R2, which are expressed on most cell types. TNF function is primarily mediated through TNF-R1 signaling. Both receptors belong to the growing TNF receptor superfamily which, includes FAS antigen and CD40. TNF-R1 contains a cytoplasmic motif, termed the "death domain," that has been found to be necessary for the transduction of the apoptotic signal. The death domain is also found in several other receptors, including FAS, DR2 (or TRUNDD), DR3 (Death Receptor 3), DR4 and DR5. TRUNDD, DR4 and DR5 are receptors for the apoptosis-inducing cytokine TRAIL. A non-death domain-containing receptor, designated decoy receptor (DcR1 or TRID), also specifically associates with TRAIL and may play a role in cellular resistance to apoptotic stimuli.

REFERENCES

1. Tartaglia, L.A., et al. 1993. A novel domain within the 55 kDa TNF receptor signals cell death. *Cell* 74: 845-853.
2. Smith, C.A., et al. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation, and death. *Cell* 76: 959-962.
3. Nagata, S., et al. 1995. The FAS death factor. *Science* 267: 1449-1456.
4. Kitson, J., et al. 1996. A death-domain-containing receptor that mediates apoptosis. *Nature* 384: 372-375.
5. Pan, G., et al. 1997. The receptor for the cytotoxic ligand TRAIL. *Science* 276: 111-113.
6. Pan, G., et al. 1997. An antagonist decoy receptor and a death domain-containing receptor for TRAIL. *Science* 277: 815-818.
7. Sheridan, J., et al. 1997. Control of TRAIL-induced apoptosis by a family of signaling and decoy receptors. *Science* 277: 818-821.
8. Pan, G., et al. 1998. TRUNDD, a new member of the TRAIL receptor family that antagonizes TRAIL signalling. *FEBS Lett.* 424: 41-45.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF10A (human) mapping to 8p21.3.

SOURCE

DR4 (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of DR4 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-31344 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

DR4 (L-20) is recommended for detection of Death Receptor 4 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DR4 siRNA (h): sc-35218, DR4 shRNA Plasmid (h): sc-35218-SH and DR4 shRNA (h) Lentiviral Particles: sc-35218-V.

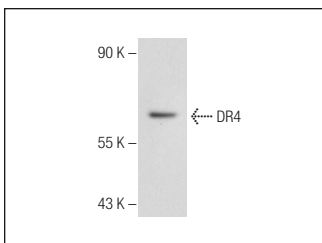
Molecular Weight of DR4: 56 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

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



DR4 (L-20): sc-31344. Western blot analysis of DR4 expression in K-562 whole cell lysate.

RESEARCH USE

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



Try **DR4 (B-9): sc-8411** or **DR4 (B-N28): sc-65312**, our highly recommended monoclonal alternatives to DR4 (L-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **DR4 (B-9): sc-8411**.