SANTA CRUZ BIOTECHNOLOGY, INC.

DcR2 (B-P30): sc-65310

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 TNF-R1 and TNF-R2 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, DR5 and DR6. TRUNDD, DR4 and DR5 are receptors for the apoptosis-inducing cytokine TRAIL. Non-death domain-containing receptors, designated decoy receptor (DcRI or TRID, DcR2 and DcR3), associate with specific ligands 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. and Golstein, P. 1995. The FAS death factor. Science 267: 1449-1456.
4. Kitson, J., et al. 1996. A death-domain-contain-ing 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 antag-onist decoy receptor and a death domain-containing receptor for TRAIL. Science 277: 815-818.
7. Sheridan, J.P., 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: TNFRSF10D (human) mapping to 8p21.3.

SOURCE

DcR2 (B-P30) is a mouse monoclonal antibody raised against recombinant TRAIL R4/Fc chimera of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

DcR2 (B-P30) is recommended for detection of DcR2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for DcR2 siRNA (h): sc-35185, DcR2 shRNA Plasmid (h): sc-35185-SH and DcR2 shRNA (h) Lentiviral Particles: sc-35185-V.

Molecular Weight of DcR2: 42 kDa.

Positive Controls: U-937 cell lysate: sc-2239, THP-1 cell lysate: sc-2238 or SW480 cell lysate: sc-2219.

RECOMMENDED SUPPORT REAGENTS

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

SELECT PRODUCT CITATIONS

1. Rahman, M., et al. 2009. TRAIL induces apoptosis in triple-negative breast cancer cells with a mesenchymal phenotype. Breast Cancer Res. Treat. 113: 217-230.
2. Lee, S.J., et al. 2010. Estrogen prevents senescence through induction of WRN, Werner syndrome protein. Horm. Res. Paediatr. 74: 33-40.

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.