



dcTRAILR2 (E-13): sc-46907

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 but, unlike TRAILR1, TRAILR2 mediates apoptosis via the intracellular adaptor molecule FADD/MORT1. Decoy TRAILR2 (or dcTRAILR2) represents the receptor for the cytotoxic ligand TNFSF10/TRAIL. dcTRAILR2 lacks a cytoplasmic death domain and is therefore not able to induce apoptosis or the NF- κ -B pathway. dcTRAILR2 functions to protect cells against TRAIL mediated apoptosis possibly through ligand competition.

REFERENCES

1. Wiley, S.R., Schooley, K., Smolak, P.J., Din, W.S., Huang, C.P., Nicholl, J.K., Sutherland, G.R., Smith, T.D., Rauch, C., Smith, C.A. and Goodwin, R.G. 1996. Identification and characterization of a new member of the TNF family that induces apoptosis. *Immunity* 3: 673-682.
2. Walczak, H., Degli-Esposti, M.A., Johnson, R.S., Smolak, P.J., Waugh, J.Y., Boiani, N., Timour, M.S., Gerhart, M.J., Schooley, K.A., Smith, C.A., Goodwin, R.G. and Rauch, C.T. 1997. TRAILR2: a novel apoptosis-mediating receptor for TRAIL. *EMBO J.* 16: 5386-5397.
3. Musgrave, B.L., Phu, T., Butler, J.J., Makrigiannis, A.P. and Hoskin, D.W. 1999. Murine TRAIL (TNF-related apoptosis inducing ligand) expression induced by T cell activation is blocked by Rapamycin, Cyclosporin A, and inhibitors of phosphatidylinositol 3-kinase, protein kinase C, and protein tyrosine kinases: evidence for TRAIL induction via the T cell receptor signaling pathway. *Exp. Cell Res.* 252: 96-103.
4. Shin, M.S., Kim, H.S., Lee, S.H., Park, W.S., Kim, S.Y., Park, J.Y., Lee, J.H., Lee, S.K., Lee, S.N., Jung, S.S., Han, J.Y., Kim, H., Lee, J.Y. and Yoo, N.J. 2001. Mutations of tumor necrosis factor-related apoptosis-inducing ligand receptor 1 (TRAILR1) and receptor 2 (TRAILR2) genes in metastatic breast cancers. *Cancer Res.* 61: 4942-4946.
5. Schneider, P., Olson, D., Tardivel, A., Browning, B., Lugovskoy, A., Gong, D., Dobles, M., Hertig, S., Hofmann, K., Van Vlijmen, H., Hsu, Y.M., Burkly, L.C., Tschopp, J. and Zheng, T.S. 2003. Identification of a new murine tumor necrosis factor receptor locus that contains two novel murine receptors for tumor necrosis factor-related apoptosis-inducing ligand (TRAIL). *J. Biol. Chem.* 278: 5444-5454.
6. Melloni, E., Secchiero, P., Celeghini, C., Campioni, D., Grill, V., Guidotti, L. and Zauli, G. 2005. Functional expression of TRAIL and TRAILR2 during human megakaryocytic development. *J. Cell. Physiol.* 204: 975-982.
7. Inoue, S., Twiddy, D., Dyer, M.J. and Cohen, G.M. 2006. Upregulation of TRAILR2 is not involved in HDACi mediated sensitization to TRAIL-induced apoptosis. *Cell Death Differ.* 13: 2160-2162.

CHROMOSOMAL LOCATION

Genetic locus: *Tnfrsf22* (mouse) mapping to 7 F5.

SOURCE

dcTRAILR2 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of dcTRAILR2 of mouse origin.

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-46907 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

dcTRAILR2 (E-13) is recommended for detection of dcTRAILR2 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 dcTRAILR2 siRNA (m): sc-60514.

Molecular Weight of dcTRAILR2: 22 kDa.

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) 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.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.