

# dcTRAILR2 (6D350): sc-70957

## 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 $\kappa$ 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.

## STORAGE

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

## CHROMOSOMAL LOCATION

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

## SOURCE

dcTRAILR2 (6D350) is a rat monoclonal antibody raised against a recombinant protein corresponding to amino acids 1-170 of the extracellular domain of dcTRAILR2 of mouse origin.

## PRODUCT

Each vial contains 50  $\mu$ g IgG<sub>2a</sub> in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

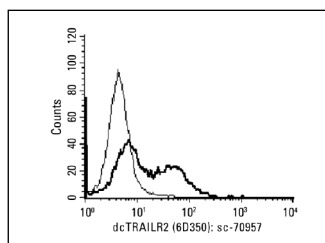
## APPLICATIONS

dcTRAILR2 (6D350) is recommended for detection of dcTRAILR2 of mouse origin by flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for dcTRAILR2 siRNA (m): sc-60514, dcTRAILR2 shRNA Plasmid (m): sc-60514-SH and dcTRAILR2 shRNA (m) Lentiviral Particles: sc-60514-V.

Molecular Weight of dcTRAILR2: 22 kDa.

## DATA



dcTRAILR2 (6D350): sc-70957. Intracellular FCM analysis of fixed and permeabilized non-transfected (thin line) and dcTRAILR2 transfected (thick line) 293T cells.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.