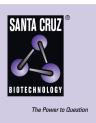
SANTA CRUZ BIOTECHNOLOGY, INC.

TWEAK (CARL-1): sc-56248



BACKGROUND

Proteins belonging to the tumor necrosis factor (TNF) superfamily are potent mediators of inflammation and of the immune system. Members of the TNF superfamily include TNF β , lymphotoxin b (LTb), CD40L, CD30L, CD27L, OX40L, 4-1BBL, FAS-L (APO-1) and TRAIL. Most TNF family members are type II transmembrane proteins that are proteolytically processed at their carboxy-terminal extracellular domain to form a soluble homotrimeric molecule. TWEAK (also designated Apo-3L) has been identified as a secreted ligand belonging to the TNF superfamily. TWEAK seems to induce apoptosis weakly, and it may be involved in cell differentiation *in vivo*.

REFERENCES

- 1. Smith, C.A., Farrah, T. and Goodwin, R.G. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation and death. Cell 76: 959-962.
- Cosman, D. 1994. A family of ligands for the TNF receptor superfamily. Stem Cells 12: 440-455.
- 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. 1995. Identification and characterization of a new member of the TNF family that induces apoptosis. Immunity 3: 673-682.
- Cleveland, J.L. and Ihle, J.N. 1995. Contenders in FasL/TNF death signaling. Cell 81: 479-482.
- Baker, S.J. and Reddy, E.P. 1996. Transducers of life and death: TNF receptors superfamily and associated proteins. Oncogene 12: 1-9.
- Pitti, R.M., Marsters, S.A., Ruppert, S., Donahue, C.J., Moore, A. and Ashkenazi, A. 1996. Induction of apoptosis by Apo-2 ligand, a new member of the TNF cytokine family. J. Biol. Chem. 271: 12687-12690.
- Chicheportiche, Y., Bourdon, P.R., Xu, H., Hsu, Y.M., Scott, H., Hession, C., Garcia, I. and Browning, J.L. 1997. TWEAK, a new secreted ligand in the TNF family that weakly induces apoptosis. J. Biol. Chem. 272: 32401-32410.

CHROMOSOMAL LOCATION

Genetic locus: TNFSF12 (human) mapping to 17p13.1.

SOURCE

TWEAK (CARL-1) is a mouse monoclonal antibody raised against hTWEAK/2PK-3 transfectant cells.

PRODUCT

Each vial contains 200 μg lgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TWEAK (CARL-1) is available conjugated to either phycoerythrin (sc-56248 PE) or fluorescein (sc-56248 FITC), 200 μ g/ml, for IF, IHC(P) and FCM.

RESEARCH USE

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

APPLICATIONS

TWEAK (CARL-1) is recommended for detection of TWEAK of human origin by flow cytometry (1 μg per 1 x 10⁶ cells).

Suitable for use as control antibody for TWEAK siRNA (h): sc-37522, TWEAK shRNA Plasmid (h): sc-37522-SH and TWEAK shRNA (h) Lentiviral Particles: sc-37522-V.

Molecular Weight of secreted TWEAK: 18 kDa.

Molecular Weight of TWEAK intact transmembrane: 30-35 kDa.

SELECT PRODUCT CITATIONS

- Meyer, T., Amaya, M., Desai, H., Robles-Carrillo, L., Hatfield, M., Francis, J.L. and Amirkhosravi, A. 2010. Human platelets contain and release TWEAK. Platelets 21: 571-574.
- Gil, H.S., Lee, J.H., Farag, A.K., Hassan, A.H.E., Chung, K.S., Choi, J.H., Roh, E.J. and Lee, K.T. 2021. AKF-D52, a synthetic phenoxypyrimidineurea derivative, triggers extrinsic/intrinsic apoptosis and cytoprotective autophagy in human non-small cell lung cancer cells. Cancers 13: 5849.

STORAGE

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

PROTOCOLS

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