

TWEAK (FL-249): sc-5558



The Power to Question

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 β (LT β), 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*.

REFERENCE

1. Smith, C.A., et al. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation, and death. *Cell* 76: 959-962.
2. Cosman, D. 1994. A family of ligands for the TNF receptor superfamily. *Stem Cells* 12: 440-455.

CHROMOSOMAL LOCATION

Genetic locus: TNFSF12 (human) mapping to 17p13.1; Tnfsf12 (mouse) mapping to 11 B3.

SOURCE

TWEAK (FL-249) is a rabbit polyclonal antibody raised against amino acids 1-249 representing full length TWEAK of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TWEAK (FL-249) is available conjugated to phycoerythrin (sc-5558 PE), 200 μ g/ml, for IF, IHC(P) and FCM.

APPLICATIONS

TWEAK (FL-249) is recommended for detection of TWEAK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 μ g per 1×10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TWEAK (FL-249) is also recommended for detection of TWEAK in additional species, including porcine.

Suitable for use as control antibody for TWEAK siRNA (h): sc-37522, TWEAK siRNA (m): sc-37523, TWEAK shRNA Plasmid (h): sc-37522-SH, TWEAK shRNA Plasmid (m): sc-37523-SH, TWEAK shRNA (h) Lentiviral Particles: sc-37522-V and TWEAK shRNA (m) Lentiviral Particles: sc-37523-V.

Molecular Weight of secreted TWEAK: 18 kDa.

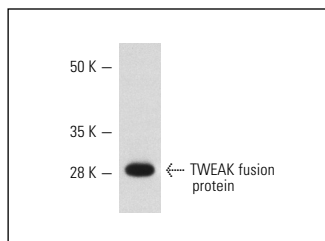
Molecular Weight of intact TWEAK transmembrane: 30-35 kDa.

Positive Controls: A-10 cell lysate: sc-3806 or WI-38 whole cell lysate: sc-364260.

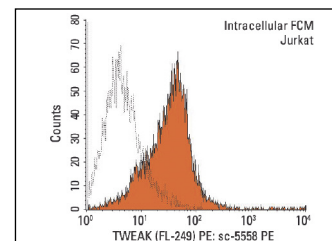
STORAGE

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

DATA



TWEAK (FL-249): sc-5558. Western blot analysis of human recombinant TWEAK fusion protein.



TWEAK (FL-249) PE: sc-5558 PE. Intracellular FCM analysis of fixed and permeabilized Jurkat cells. Black line histogram represents the isotype control, normal rabbit IgG: sc-3871.

SELECT PRODUCT CITATIONS

1. Pluchino, S., et al. 2005. Neurosphere-derived multipotent precursors promote neuroprotection by an immunomodulatory mechanism. *Nature* 436: 266-271.
2. Baxter, F.O., et al. 2006. IKK β /2 induces TWEAK and apoptosis in mammary epithelial cells. *Development* 133: 3485-3494.
3. Wako, M., et al. 2007. Novel function of TWEAK in inducing intervertebral disc degeneration. *J. Orthop. Res.* 25: 1438-1446.
4. Peternel, S., et al. 2011. Expression of TWEAK in normal human skin, dermatitis and epidermal neoplasms: association with proliferation and differentiation of keratinocytes. *J. Cutan. Pathol.* 38: 780-789.
5. Yoriki, R., et al. 2011. Therapeutic potential of the TWEAK/Fn14 pathway in intractable gastrointestinal cancer. *Exp. Ther. Med.* 2: 103-108.
6. Dore-Duffy, P. 2014. Pericytes and adaptive angioplasticity: the role of tumor necrosis factor-like weak inducer of apoptosis (TWEAK). *Methods Mol. Biol.* 1135: 35-52.

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.

MONOS
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Try **TWEAK (MTW-1): sc-56251**, our highly recommended monoclonal alternative to TWEAK (FL-249).