

TWEAK (S-20): sc-12405



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*.

CHROMOSOMAL LOCATION

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

SOURCE

TWEAK (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of 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 (S-20) is available conjugated phycoerythrin (sc-12405 PE, 200 μ g/ml), for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-12405 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TWEAK (S-20) 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 (S-20) is also recommended for detection of TWEAK in additional species, including canine.

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

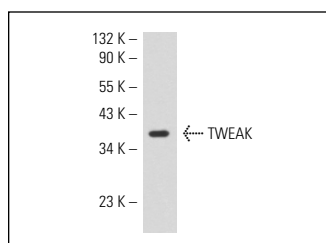
STORAGE

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

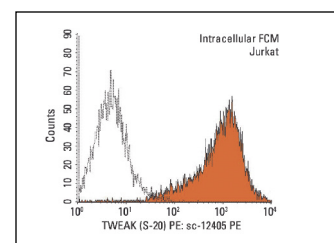
RESEARCH USE

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

DATA



TWEAK (S-20): sc-12405. Western blot analysis of TWEAK expression in WI-38 whole cell lysate.



TWEAK (S-20) PE: sc-12405 PE. Intracellular FCM analysis of fixed and permeabilized Jurkat cells. Black line histogram represents the isotype control, normal goat IgG: sc-3992.

SELECT PRODUCT CITATIONS

- De Ketelaere, A., et al. 2004. Involvement of GSK-3 β in TWEAK-mediated NF κ B activation. *FEBS Lett.* 566: 60-64.
- Alexaki, V.I., et al. 2009. Adipocytes as immune cells: differential expression of TWEAK, BAFF, and APRIL and their receptors (Fn14, BAFF-R, TACI, and BCMA) at different stages of normal and pathological adipose tissue development. *J. Immunol.* 183: 5948-5956.
- de Araujo, E., et al. 2011. Death ligand TRAIL, secreted by CD1a⁺ and CD14⁺ cells in blister fluids, is involved in killing keratinocytes in toxic epidermal necrolysis. *Exp. Dermatol.* 20: 107-112.
- Pelekanou, V., et al. 2011. Detection of the TNFSF members BAFF, APRIL, TWEAK and their receptors in normal kidney and renal cell carcinomas. *Anal. Cell. Pathol.* 34: 49-60.
- Sabour Alaoui, S., et al. 2012. TWEAK affects keratinocyte G₂/M growth arrest and induces apoptosis through the translocation of the AIF protein to the nucleus. *PLoS ONE* 7: e33609.
- Petersen, I., et al. 2013. Expression of TWEAK/Fn14 in neuroblastoma: implications in tumorigenesis. *Int. J. Oncol.* 42: 1239-1248.
- Simone, T.M., et al. 2015. A small molecule PAI-1 functional inhibitor attenuates neointimal hyperplasia and vascular smooth muscle cell survival by promoting PAI-1 cleavage. *Cell. Signal.* 27: 923-933.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **TWEAK (MTW-1): sc-56251**, our highly recommended monoclonal alternative to TWEAK (S-20).