

TRAIL (K-18): sc-6079

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 and FAS-L (APO-1). 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. The extracellular domain of an additional TNF family member, designated TNF-related apoptosis-inducing ligand (TRAIL) or APO-2L, exhibits 14-28% homology with other members of the TNF family. Like soluble FAS-L, soluble TRAIL will induce apoptosis. The morphological and cellular changes caused by the introduction of soluble TRAIL to Jurkat cells are indistinguishable from those caused by the introduction of soluble FAS-L. Unlike FAS-L, whose expression is more or less restricted to activated T cells, significant levels of TRAIL are observed in many tissues and it is constitutively expressed by some cell lines.

CHROMOSOMAL LOCATION

Genetic locus: TNFSF10 (human) mapping to 3q26.31; Tnfsf10 (mouse) mapping to 3 A3.

SOURCE

TRAIL (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TRAIL 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.

Blocking peptide available for competition studies, sc-6079 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRAIL (K-18) is recommended for detection of TRAIL 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TRAIL (K-18) is also recommended for detection of TRAIL in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TRAIL siRNA (h): sc-36719, TRAIL siRNA (m): sc-37271, TRAIL shRNA Plasmid (h): sc-36719-SH, TRAIL shRNA Plasmid (m): sc-37271-SH, TRAIL shRNA (h) Lentiviral Particles: sc-36719-V and TRAIL shRNA (m) Lentiviral Particles: sc-37271-V.

Molecular Weight of TRAIL: 34 kDa.

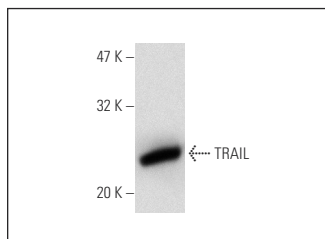
Molecular Weight of soluble TRAIL: 20 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, A549 cell lysate: sc-2413 or PC-3 cell lysate: sc-2220.

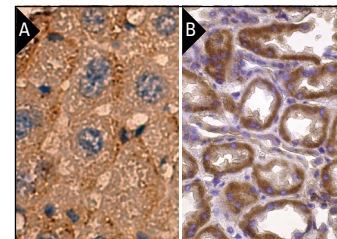
STORAGE

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

DATA



TRAIL (K-18): sc-6079. Western blot analysis of TRAIL expression in AT-3 whole cell lysate.



TRAIL (K-18): sc-6079. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse liver tissue showing membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (B).

SELECT PRODUCT CITATIONS

- Phillips, T.A., et al. 1999. TRAIL (Apo-2L) and TRAIL receptors in human placentas: implications for immune privilege. *J. Immunol.* 162: 6053-6059.
- De Maria, R., et al. 1999. Negative regulation of erythropoiesis by caspase-mediated cleavage of GATA-1. *Nature* 401: 489-495.
- Marchong, M.N., et al. 2010. Cdh11 acts as a tumor suppressor in a murine retinoblastoma model by facilitating tumor cell death. *PLoS Genet.* 6: e1000923.
- Duiker, E.W., et al. 2010. The extrinsic apoptosis pathway and its prognostic impact in ovarian cancer. *Gynecol. Oncol.* 116: 549-555.
- Ho, T.C., et al. 2011. Pigment epithelium-derived factor (PEDF) promotes tumor cell death by inducing macrophage membrane tumor necrosis factor-related apoptosis-inducing ligand (TRAIL). *J. Biol. Chem.* 286: 35943-35954.
- Anees, M., et al. 2011. Recurrence-free survival in prostate cancer is related to increased stromal TRAIL expression. *Cancer* 117: 1172-1182.
- 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.

RESEARCH USE

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



Try **TRAIL (D-3): sc-8440** or **TRAIL (RIK-2): sc-56246**, our highly recommended monoclonal alternatives to TRAIL (K-18).