



TRAIL (B-S23): sc-65340

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, O α 40L, 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.

REFERENCES

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4. Nagata, S. and Golstein, P. 1995. The FAS death factor. *Science* 267: 1449-1456.
5. Wiley, S.R., et al. 1995. Identification and characterization of a new member of the TNF family that induces apoptosis. *Immunity* 3: 673-682.
6. Baker, S.J., et al. 1996. Transducers of life and death: TNF receptor superfamily and associated proteins. *Oncogene* 12: 1-9.
7. Pitti, R.M., et al. 1996. Induction of apoptosis by Apo-2 ligand, a new member of the tumor necrosis factor cytokine family. *J. Biol. Chem.* 271: 12687-12690.
8. Plasilova, M., et al. 2002. TRAIL (Apo-2L) suppresses growth of primary human leukemia and myelodysplasia progenitors. *Leukemia* 16: 67-73.
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CHROMOSOMAL LOCATION

Genetic locus: TNFSF10 (human) mapping to 3q26.

SOURCE

TRAIL (B-S23) is a mouse monoclonal antibody raised against recombinant TRAIL of human origin.

STORAGE

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

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and 1% BSA.

Available as phycoerythrin conjugate for flow cytometry, sc-65340 PE, 100 tests.

APPLICATIONS

TRAIL (B-S23) is recommended for detection of TRAIL of 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)] and flow cytometry (1 μ g per 1 x 10⁶ cells).

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

Molecular Weight of TRAIL: 34 kDa.

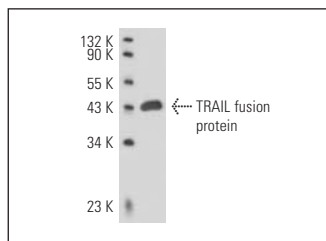
Molecular Weight of soluble TRAIL: 20 kDa.

Positive Controls: AT-3 whole cell lysate or A549 cell lysate: sc-2413.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



TRAIL (B-S23): sc-65340. Western blot analysis of human recombinant TRAIL fusion protein.

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.