

CD137 (h2): 293T Lysate: sc-175476

BACKGROUND

CD137, also designated ILA and 4-1BB in mouse, belongs to the tumor necrosis factor receptor family and delivers a costimulatory signal to T lymphocytes. CD137 is expressed on activated T cells and binds an inducible ligand that is found on B cells, macrophages and dendritic cells. Interactions between CD137 and its ligand are involved in antigen presentation and the generation of cytotoxic T cells. Crosslinking of the CD137 ligand induces apoptosis in resting lymphocytes. In contrast, CD137 regulates peripheral monocyte survival by inducing a cytokine release profile, and is mediated by M-CSF and to a lesser extent by granulocyte-macrophage colony-stimulating factor and IL-3. Soluble forms of CD137 are found in sera from patients with rheumatoid arthritis and may provide a negative control mechanism for immune responses.

REFERENCES

1. Michel, J., et al. 1999. CD-137-induced apoptosis is independent of CD95. *Immunology* 98: 42-46.
2. Langstein, J. and Schwarz, H. 1999. Identification of CD137 as a potent monocyte survival factor. *J. Leukoc. Biol.* 65: 829-833.
3. Langstein, J., et al. 2000. Comparative analysis of CD137 and LPS effects on monocyte activation, survival, and proliferation. *Biochem. Biophys. Res. Commun.* 24: 117-122.
4. Kienzle, G. and von Kempis, J. 2000. CD137 (ILA/4-1BB), expressed by primary human monocytes, induces monocyte activation and apoptosis of B lymphocytes. *Int. Immunol.* 12: 73-82.
5. Michel, J. and Schwarz, H. 2000. Expression of soluble cd137 correlates with activation-induced cell death of lymphocytes. *Cytokine* 12: 742-746.
6. Dimberg, J., et al. 2006. Expression of CD137 and CD137 ligand in colorectal cancer patients. *Oncol. Rep.* 15: 1197-1200.
7. McMillin, DW., et al. 2006. Complete regression of large solid tumors using engineered drug-resistant hematopoietic cells and anti-CD137 immunotherapy. *Hum. Gene Ther.* 17: 798-806.
8. Myers, L., et al. 2006. Combined CD137 (4-1BB) and adjuvant therapy generates a developing pool of peptide-specific CD8 memory T cells. *Int. Immunol.* 18: 325-333.
9. Polte, T., et al. 2006. CD137-mediated immunotherapy for allergic asthma. *J. Clin. Invest.* 116: 1025-1036.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF9 (human) mapping to 1p36.23.

PRODUCT

CD137 (h2): 293T Lysate represents a lysate of human CD137 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

CD137 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive CD137 antibodies. Recommended use: 10-20 µl per lane.

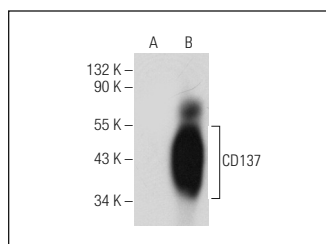
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CD137 (O.N.185): sc-70531 is recommended as a positive control antibody for Western Blot analysis of enhanced human CD137 expression in CD137 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



CD137 (O.N.185): sc-70531. Western blot analysis of CD137 expression in non-transfected: sc-117752 (A) and human CD137 transfected: sc-175476 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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