

CD137L (ANC5D6): sc-65279

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. Chalupny, N.J., Peach, R., Hollenbaugh, D., Ledbetter, J.A., Farr, A.G. and Aruffo, A. 1992. T cell activation molecule 4-1BB binds to extracellular matrix proteins. *Proc. Natl. Acad. Sci. USA* 89: 10360-10364.
2. Pollok, K.E., Kim, Y.J., Zhou, Z., Hurtado, J., Kim, K.K., Pickard, R.T. and Kwon, B.S. 1993. Inducible T cell antigen 4-1BB. Analysis of expression and function. *J. Immunol.* 150: 771-781.
3. Kim, Y.J., Pollok, K.E., Zhou, Z., Shaw, A., Bohlen, J.B., Fraser, M. and Kwon, B.S. 1993. Novel T cell antigen 4-1BB associates with the protein tyrosine kinase p56lck1. *J. Immunol.* 151: 1255-1262.
4. DeBenedette, M.A., Chu, N.R., Pollok, K.E., Hurtado, J., Wade, W.F., Kwon, B.S. and Watts, T.H. 1995. Role of 4-1BB ligand in costimulation of T lymphocyte growth and its upregulation on M12 B lymphomas by cAMP. *J. Exp. Med.* 181: 985-992.
5. Hurtado, J.C., Kim, S.H., Pollok, K.E., Lee, Z.H. and Kwon, B.S. 1995. Potential role of 4-1BB in T cell activation. Comparison with the costimulatory molecule CD28. *J. Immunol.* 155: 3360-3367.
6. Pollok, K.E., Kim, S.H. and Kwon, B.S. 1995. Regulation of 4-1BB expression by cell-cell interactions and the cytokines, interleukin-2 and interleukin-4. *Eur. J. Immunol.* 25: 488-494.
7. Zhou, Z., Pollok, K.E., Kim, K.K., Kim, Y.J. and Kwon, B.S. 1995. Functional analysis of T cell antigen 4-1BB in activated intestinal intra-epithelial T lymphocytes. *Immunol. Lett.* 41: 177-184.
8. DeBenedette, M.A., Shahinian, A., Mak, T.W. and Watts, T.H. 1997. Costimulation of CD28⁺ T lymphocytes by 4-1BB ligand. *J. Immunol.* 158: 551-559.
9. Hurtado, J.C., Kim, Y.J. and Kwon, B.S. 1997. Signals through 4-1BB are costimulatory to previously activated splenic T cells and inhibit activation-induced cell death. *J. Immunol.* 158: 2600-2609.

CHROMOSOMAL LOCATION

Genetic locus: TNFSF9 (human) mapping to 19p13.3.

SOURCE

CD137L (ANC5D6) is a mouse monoclonal antibody raised against recombinant CD137L of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

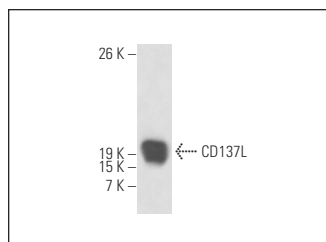
CD137L (ANC5D6) is recommended for detection of CD137L of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD137L siRNA (h): sc-42827, CD137L shRNA Plasmid (h): sc-42827-SH and CD137L shRNA (h) Lentiviral Particles: sc-42827-V.

Molecular Weight of CD137L: 60 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, Daudi cell lysate: sc-2415 or CCRF-CEM cell lysate: sc-2225.

DATA



CD137L (ANC5D6): sc-65279. Western blot analysis of human recombinant CD137L.

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.

PROTOCOLS

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