RANKL (h): 293T Lysate: sc-127849



The Power to Question

BACKGROUND

Members of the tumor necrosis factor (TNF) receptor superfamily interact with signaling molecules of the TNF receptor-associated factor (TRAF) family to activate the NF κ B and JNK pathways. RANK (receptor activator of NF κ B) is a member of the TNFR family identified on dendritic cells. This type I membrane receptor is expressed in a broad range of tissues. The C-terminus of RANK is required for RANK to bind TRAF2, 5 and 6, and it is also necessary for stimulating NF κ B activation. The ligand for this receptor, RANKL (also designated TRANCE, OPGL or ODF), is a type II transmembrane protein expressed primarily in lymphoid tissues and T cell lines. RANKL appears to be an important regulator of T cells and osteoclasts.

REFERENCES

- Wong, B.R., et al. 1997. TRANCE is a novel ligand of the tumor necrosis factor receptor family that activates c-Jun N-terminal kinase in T cells. J. Biol. Chem. 272: 25190-25194.
- 2. Natoli, G., et al. 1997. Tumor necrosis factor (TNF) receptor 1 signaling downstream of TNF receptor-associated factor 2. Nuclear factor κB (NF κB)-inducing kinase requirement for activation of activating protein 1 and NF κB but not of c-Jun N-terminal kinase/stress-activated protein kinase. J. Biol. Chem. 272: 26079-26082.
- 3. Shi, C.S., et al. 1997. Activation of stress-activated protein kinase/c-Jun N-terminal kinase, but not NFκB, by the tumor necrosis factor (TNF) receptor 1 through a TNF receptor-associated factor 2- and germinal center kinase related-dependent pathway. J. Biol. Chem. 272: 32102-32107.
- Anderson, D.M., et al. 1997. A homologue of the TNF receptor and its ligand enhance T cell growth and dendritic-cell function. Nature 390: 175-179.
- Darnay, B.G., et al. 1998. Characterization of the intracellular domain of receptor activator of NFκB (RANK). Interaction with tumor necrosis factor receptor-associated factors and activation of NFκB and c-Jun N-terminal kinase. J. Biol. Chem. 273: 20551-20555.
- 6. Wong, B.R., et al. 1998. The TRAF family of signal transducers mediates NF κ B activation by the TRANCE receptor. J. Biol. Chem. 273: 28355-28359.
- 7. Kim, N., et al. 2000. Diverse roles of the tumor necrosis factor family member TRANCE in skeletal physiology revealed by TRANCE deficiency and partial rescue by a lymphocyte-expressed TRANCE transgene. Proc. Natl. Acad. Sci. USA 97: 10905-10910.
- 8. Sezer, O., et al. 2003. RANK ligand and osteoprotegerin in myeloma bone disease. Blood 101: 2094-2098.
- 9. Loser, K. et al. 2006. Epidermal RANKL controls regulatory T cell numbers via activation of dendritic cells. Nat. Med. 12: 1372-1379.

CHROMOSOMAL LOCATION

Genetic locus: TNFSF11 (human) mapping to 13q14.11.

PRODUCT

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

APPLICATIONS

RANKL (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive RANKL 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.

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.

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.

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