



RANKL (12A380): sc-59982

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, OPG 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

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- 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.
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- Sezer, O., et al. 2003. RANK ligand and osteoprotegerin in myeloma bone disease. *Blood* 101: 2094-2098.
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CHROMOSOMAL LOCATION

Genetic locus: TNFSF11 (human) mapping to 13q14.11; Tnfsf11 (mouse) mapping to 14 D3.

SOURCE

RANKL (12A380) is a mouse monoclonal antibody raised against amino acids 1-317 of RANKL of mouse origin.

PRODUCT

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

RANKL (12A380) is available conjugated phycoerythrin (sc-59982 PE, 100 tests in 2 ml), for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

RANKL (12A380) is recommended for detection of RANKL of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for RANKL siRNA (h): sc-29464, RANKL siRNA (m): sc-37270, RANKL shRNA Plasmid (h): sc-29464-SH, RANKL shRNA Plasmid (m): sc-37270-SH, RANKL shRNA (h) Lentiviral Particles: sc-29464-V and RANKL shRNA (m) Lentiviral Particles: sc-37270-V.

Molecular Weight of RANKL full length: 35-40 kDa.

Molecular Weight of RANKL membrane bound: 35-40 kDa.

Molecular Weight of soluble RANKL: 20-30 kDa.

Positive Controls: BYDP whole cell lysate: sc-364368.

SELECT PRODUCT CITATIONS

- Xu, L., et al. 2017. Glycosylation status of bone sialoprotein and its role in mineralization. *Exp. Cell Res.* 360: 413-420.
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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.