

# RANK (D-20): sc-34249

## 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 $\kappa$ B and JNK pathways. RANK (receptor activator of NF $\kappa$ 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 TRAF 2, 5 and 6, and it is also necessary for stimulating NF $\kappa$ B activation. The ligand for this receptor, RANKL (also designated TRANCE 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.

## CHROMOSOMAL LOCATION

Genetic locus: TNFRSF11A (human) mapping to 18q21.33; Tnfrsf11a (mouse) mapping to 1 E2.1.

## SOURCE

RANK (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of RANK of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34249 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

RANK (D-20) is recommended for detection of RANK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RANK (D-20) is also recommended for detection of RANK in additional species, including canine and porcine.

Suitable for use as control antibody for RANK siRNA (h): sc-42960, RANK siRNA (m): sc-42961, RANK shRNA Plasmid (h): sc-42960-SH, RANK shRNA Plasmid (m): sc-42961-SH, RANK shRNA (h) Lentiviral Particles: sc-42960-V and RANK shRNA (m) Lentiviral Particles: sc-42961-V.

Molecular Weight (predicted) of RANK: 66 kDa.

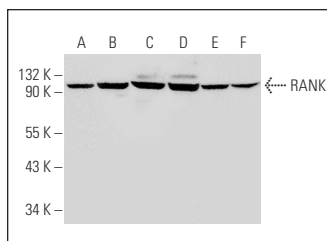
Molecular Weight (observed) of RANK: 82-90 kDa.

Positive Controls: RANK (m): 293T Lysate: sc-122962, Neuro-2A whole cell lysate: sc-364185 or KNRK whole cell lysate: sc-2214.

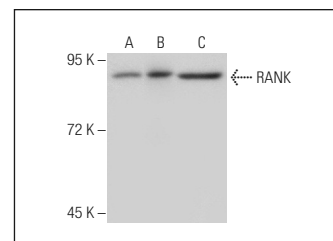
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



RANK (D-20): sc-34249. Western blot analysis of RANK expression in KNRK (A), Neuro-2A (B), Hep G2 (C), A-673 (D), BYDP (E) and F9 (F) whole cell lysates.



RANK (D-20): sc-34249. Western blot analysis of RANK expression in non-transfected 293T: sc-117752 (A), mouse RANK transfected 293T: sc-122962 (B) and Hep G2 (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Wang, T., et al. 2015. MicroRNA-106b inhibits osteoclastogenesis and osteolysis by targeting RANKL in giant cell tumor of bone. *Oncotarget* 6: 18980-18996.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **RANK (H-7): sc-374360** or **RANK (B-8): sc-390655**, our highly recommended monoclonal alternatives to RANK (D-20). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **RANK (H-7): sc-374360**.