

#4845 Store at -20°C

RANK Antibody

✓ 100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #8792
Swiss-Prot Acc. #Q9Y6Q6

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, M, R	80 kDa	Rabbit**

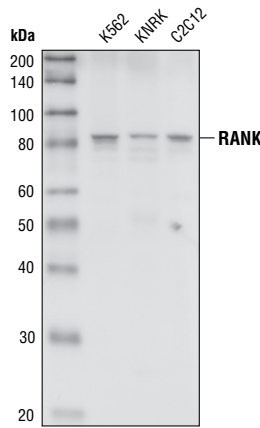
Background: RANK (receptor activator of NF-κB) is a member of the tumor necrosis factor (TNF) receptor subfamily that is activated by its ligand RANKL (TRANCE/OPGL/ODF) to promote survival of dendritic cells and differentiation of osteoclasts (1–4). Although RANK is widely expressed, its cell surface expression may be more restricted to dendritic cells and foreskin fibroblasts (1). RANK contains a 383-amino acid intracellular domain that associates with specific members of the TRAF family leading to NF-κB and JNK activation (1,5). RANKL/RANK signaling may also lead to survival signaling through activation of the Akt pathway and an upregulation of survival proteins, including Bcl-xL (2,6). RANK signaling has been implicated as a potential therapeutic to inhibit bone loss and arthritis (7,8).

Specificity/Sensitivity: RANK Antibody detects endogenous levels of RANK protein.

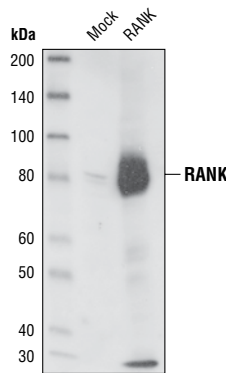
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of RANK. Antibodies were purified by protein A and peptide affinity chromatography.

Background References:

- (1) Anderson, D.M. et al. (1997) *Nature* 390, 175–179.
- (2) Wong, B.R. et al. (1997) *J. Exp. Med.* 186, 2075–80.
- (3) Lacey, D.L. et al. (1998) *Cell* 93, 165–76.
- (4) Yasuda, H. et al. (1998) *Proc. Natl. Acad. Sci. USA* 95, 3597–602.
- (5) Darnay, B.G. et al. (1998) *J. Biol. Chem.* 273, 20551–5.
- (6) Wong, B.R. et al. (1999) *Mol. Cell* 4, 1041–9.
- (7) Walsh, M.C. and Choi, Y. *Cytokine Growth Factor Rev.* 14, 251–63.
- (8) Nakashima, T. et al. (2003) *Curr. Opin. Rheumatol.* 15, 280–7.



Western blot analysis of extracts from K562 (human), KNRK (rat) and C2C12 (mouse) cell lines, using RANK Antibody.



Western blot analysis of extracts from HeLa cells mock transfected or transfected with mRANK, using RANK Antibody.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.