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RANK Antibody

Store at -20C
#4845

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 80	Source/Isotype: Rabbit	UniProt ID: #Q9Y6Q6	Entrez-Gene Id: 8792
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

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.

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

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 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).

Background References

1. Anderson, D.M. et al. (1997) *Nature* 390, 175-9.
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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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