

Mouse RANK Ligand Recombinant Protein

Catalog Number: 14-8612

Also Known As: RANKL, TRANCE, Receptor Activator for Nuclear Factor kappa B Ligand, Osteoprotegerin ligand, OPGL, ODF, Osteoclast Differentiation Factor

RUO: For Research Use Only

Product Information

Contents: Mouse RANK Ligand Recombinant Protein

REF **Catalog Number:** 14-8612

Concentration: 0.1 mg/mL

Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in a sterile environment

Source: *E. coli* expressed amino acid Lys158 - Asp316 (Accession # Q3TWY5)


Molecular Mass: 20 kDa

Purity: than 90%, as determined by reducing SDS-PAGE

Endotoxin Level: Less than 0.01 ng/μg cytokine as determined by the LAL assay.

Bioactivity: The ED₅₀, as measured by induction of osteoclast formation on mouse RAW264.7 cells, is 4.8 ng/ml.

Formulation: Sterile liquid; phosphate buffered saline, pH 7.2, 1.0% BSA. 0.22 μm filtered.

 **Temperature Limitation:** Store at less than or equal to -70°C.

LOT **Batch Code:** Refer to Vial

 **Use By:** Refer to Vial

Description

RANK Ligand (Receptor Activator for Nuclear Factor κB Ligand), also known as TNF-related activation-induced cytokine (TRANCE), along with RANK are members of the TNF superfamily. RANK-L can be found as a soluble protein expressed by activated T lymphocytes, which plays a role in dendritic cell maturation. In addition it has also been shown to be cleaved by TACE (TNF-α convertase) releasing an ectodomain variant of the cell bound form. Lastly RANK-L is expressed as a Type II transmembrane protein expressed by osteoblast lineages. The receptor RANK, located on osteoclastic and dendritic cells can recognize all forms of RANK-L. RANK-L plays a critical role in bone development and mineralization. High levels of RANK-L have been associated with degenerative bone diseases.

Applications Reported

Recombinant mouse RANK-L is biologically active.

Applications Tested

ED₅₀, as measured by induction of osteoclast formation on mouse RAW264.7 cells, is 4.8 ng/ml.

References

Leibbrandt, A. Penninger, J. M. RANKL/RANK as key factors for osteoclast development and bone loss in arthropathies. *Adv Exp Med Biol.* 2009; 649:100-13.

Kobayashi, Y, Udagawa, N, Takahashi, N. Action of RANKL and OPG for osteoclastogenesis. *Crit Rev Eukaryot Gene Expr.* 2009;19 (1):61-72.

Related Products

12-5952 Anti-Mouse CD254 (RANKL) PE (IK22/5)

12-6612 Anti-Mouse CD265 (RANK) PE (R12-31)

13-5952 Anti-Mouse CD254 (RANKL) Biotin (IK22/5)

13-6612 Anti-Mouse CD265 (RANK) Biotin (R12-31)

14-5952 Anti-Mouse CD254 (RANKL) Purified (IK22/5)

14-6612 Anti-Mouse CD265 (RANK) Purified (R12-31)