



Recombinant Mouse RANKL, soluble

20171117BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	M10-083S
Size:	2 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	21943
Synonyms:	Tnfsf11; ODF; OPG; OPGL; RANKL; Ly109i; Trance

RANKL and RANK are members of the TNF superfamily of ligands and receptors that play an important role in the regulation of specific immunity and bone turnover. RANK (receptor) was originally identified as a dendritic cell-membrane protein, which, by interacting with RANKL, augments the ability of dendritic cells. These dendritic cells then stimulate naïve T-cell proliferation in a mixed lymphocyte reaction, promote the survival of RANK + T-cells, and regulate T-cell-dependent immune response. RANKL, which is expressed in a variety of cells, including osteoblasts, fibroblasts, activated T-cells and bone marrow stromal cells, is also capable of interacting with a decoy receptor called OPG. Binding of soluble OPG to sRANKL inhibits osteoclastogenesis by interrupting the signaling between stromal cells and osteoclastic progenitor cells, thereby leading to excess accumulation of bone and cartilage. Recombinant mouse sRANK Ligand is a 19.8 kDa polypeptide comprising the TNF-homologous region of RANKL (178 amino acid residues).

Sequence

```
FSGAPAMMEG SWLDVAQRGK PEAQPF AHLT INAASIPSGS  
HKVTLSSWYH DRGWAKISNM T LSNGLKLRVN QDGFYYLYAN  
ICFRHHETSG SVPTDYLQLM VYVVKTSIKI PSSHNLMKGG  
STKNWSGNSE FHFYSINVG G FFKLRAGEEI SIQVSNPSSL  
DPDQDATYFG AFKVQDID
```

Database References

Protein RefSeq:	NP_035743.2
Uniprot ID:	O35235
mRNA RefSeq:	NM_011613

Product Specifications

Expressed in	CHO cells
Purity	> 95% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	178
MW:	19.8 kDa

Stability: The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 3 months at -20°C to -80°C.

Reconstitution: Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. *Do not vortex.* This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Determined by its ability to activate LacZ reporter under control of NF-kappa-B-responsive element in RAW264.7 cells in the absence of any cross-linking. The expected ED₅₀ for this effect is 3.0-20.0 ng/ml.