

## Recombinant Rat TNFSF11 (RANKL)

**Cat. No.** TNFSF11-59R    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Product Overview</b> | Mouse RANKL was produced in yeast and therefore does not have endotoxin, is naturally folded, and post-translationally modified.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>          | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>           | Yeast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>      | <p>Tumor necrosis factor ligand superfamily member 11 (TNFSF11) also known as Receptor Activator of Nuclear factor Kappa-B Ligand (RANKL), TNF-related activation-induced cytokine (TRANCE), osteoprotegerin ligand (OPGL), and osteoclast differentiation factor (ODF) is a member of the tumor necrosis factor ligand (TNF) ligand family. Nineteen cytokines have been identified as part of the TNF family on the basis of sequence, functional, and structural similarities. Family members include TNF beta (TNFSF1), TNF alpha (TNFSF2), Lymphotoxin beta (TNFSF3), OX40 Ligand (TNFSF4), CD40 Ligand (TNFSF5), Fas Ligand (TNFSF6), CD27 Ligand (TNFSF7), CD30 Ligand (TNFSF8), 4-1BB Ligand (TNFSF9), TRAIL (TNFSF10), TRANCE/RANKL (TNFSF11), TWEAK (TNFSF12), APRIL (TNFSF13), BAFF (TNFSF13B), LIGHT (TNFSF14), TL1A/VEGI (TNFSF15), and GITR Ligand (TNFSF18). RANKL regulates bone remodelling and the development of the thymus, lymph nodes and mammary glands. Overproduction of RANKL is implicated in a variety of degenerative bone diseases, such as rheumatoid arthritis and psoriatic arthritis.</p> |
| <b>Form</b>             | Lyophilized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b>   | 19.8 kDa                                                                                                                                                                                                                                                                                                                                                    |
| <b>AA Sequence</b>      | FSGVPAMMEG SWLDVARRGK PEAQPFAHLT INAANIPSGS HKVSLSSWYH<br>DRGWAKISNM TLSNGKLRVN QDGFYYLYAN ICFRHHETSG SVPADYQLQM<br>VYVVKTSIKI PSSHNLMKGG STKNWSGNSE FHFYSINVGG FFKLRAGEEI<br>SVQVSNPSLL DPDQDATYFG AFKVQDID (178)                                                                                                                                          |
| <b>Applications</b>     | The Rat RANKL protein can be used in cell culture, as an RANKL ELISA Standard, and as a Western Blot Control.                                                                                                                                                                                                                                               |
| <b>Storage</b>          | -20 C                                                                                                                                                                                                                                                                                                                                                       |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                                             |
| <b>Gene Name</b>        | Tnfsf11 tumor necrosis factor (ligand) superfamily, member 11 [ Rattus norvegicus ]                                                                                                                                                                                                                                                                         |
| <b>Official Symbol</b>  | TNFSF11                                                                                                                                                                                                                                                                                                                                                     |
| <b>Synonyms</b>         | TNFSF11; tumor necrosis factor (ligand) superfamily, member 11; tumor necrosis factor ligand superfamily member 11; ODF; OPGL; TRANCE; osteoprotegerin ligand; osteoclast differentiation factor; TNF-related activation-induced cytokine; receptor activator of nuclear factor kappa B ligand; receptor activator of nuclear factor kappa-B ligand; RANKL; |
| <b>Gene ID</b>          | 117516                                                                                                                                                                                                                                                                                                                                                      |
| <b>mRNA Refseq</b>      | NM_057149                                                                                                                                                                                                                                                                                                                                                   |
| <b>Protein Refseq</b>   | NP_476490                                                                                                                                                                                                                                                                                                                                                   |
| <b>Pathway</b>          | Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-                                                                                                                                                                                                                                                                              |

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cytokine receptor interaction, conserved biosystem; Osteoblast, organism-specific biosystem; Osteoclast, organism-specific biosystem; Osteoclast differentiation, organism-specific biosystem; Osteoclast differentiation, conserved biosystem; Rheumatoid arthritis, organism-specific biosystem;

**Function**

cytokine activity; cytokine activity; receptor activity; tumor necrosis factor receptor binding; tumor necrosis factor receptor superfamily binding;

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