

# Recombinant Rat Tnfsf11

**Cat. No.** Tnfsf11-2680R    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant rat Tnfsf11 is a 19.4 kDa polypeptide comprising the TNF homologous region of RANKL (174 amino acid residues). It is expressed in <i>E. coli</i> .
<b>Species</b>	Rat
<b>Source</b>	E.coli
<b>Description</b>	RANKL (Receptor Activator for Nuclear Factor $\kappa$ B Ligand), also known as TNF-related activation-induced cytokine (TRANCE), osteoprotegerin ligand (OPGL), and ODF (osteoclast differentiation factor), is a molecule important in bone metabolism. This natural and necessary surface-bound molecule found on osteoblasts serves to activate osteoclasts, which are the cells involved in bone resorption. Overproduction of RANKL is implicated in a variety of degenerative bone diseases, such as rheumatoid arthritis and psoriatic arthritis.
<b>Purity</b>	Greater than 98% (determined by SDS-PAGE and HPLC analysis).
<b>MW</b>	19.4 kDa.
<b>Endotoxin Level</b>	< 0.1 ng per $\mu$ g of rHu APO-E4 (1EU/ $\mu$ g).
<b>Formulation</b>	Lyophilized from a sterile-filtered solution with no additives.
<b>Reconstitution</b>	Please Note: Always centrifuge product before opening vial. The lyophilized protein should be reconstituted with distilled, sterile water to a concentration of 0.1-1.0 mg/ml.

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For further dilution, carrier protein (0.1% BSA or HSA) should be added to avoid loss of bioactivity.

**Storage**

The lyophilized protein, though stable at room temperature for up to 3 weeks, is best stored desiccated at -20°C. Reconstituted protein should be used immediately or stored long-term in undiluted working aliquots at -20°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid repeated freeze-thaw cycles.

## GENE INFORMATION

**Gene Name**

Tnfsf11 tumor necrosis factor (ligand) superfamily, member 11 [ *Rattus norvegicus* ]

**Synonyms**

Tnfsf11; tumor necrosis factor (ligand) superfamily, member 11; ODF; OPGL; TNF-related activation-induced cytokine; TRANCE; osteoclast differentiation factor; osteoprotegerin ligand; receptor activator of nuclear factor kappa B ligand; receptor activator of nuclear factor kappa-B ligand; tumor necrosis factor ligand superfamily member 11; RANKL

**Gene ID**

117516

**mRNA Refseq**

NM\_057149

**Protein Refseq**

NP\_476490

**UniProt ID**

Q9ESE2

**Chromosome Location**

15q11

**Pathway**

Cytokine-cytokine receptor interaction

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**Function**

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

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