

# Active Recombinant Mouse Tumor Necrosis Factor (Ligand) Superfamily, Member 11

**Cat. No.** Tnfsf11-474M    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant M-sTnfsf11 is approximately 19.9 kDa and contains 176 amino acids.
<b>Species</b>	Mouse
<b>Source</b>	E.coli
<b>Description</b>	Tnfsf11 occurs in 3 forms: cell-bound Tnfsf11, which is expressed by osteoblast lineage cells, soluble Tnfsf11, which is expressed by activated T lymphocytes, and a truncated ectodomain form derived from the cell-bound Tnfsf11, which is enzymatically processed by TACE. All three forms stimulate their specific receptor, RANK, which is located on osteoclastic and dendritic cells. Tnfsf11 is critically involved in osteoclastic function, and in the regulation of specific immunity.
<b>Form</b>	Lyophilized 10 mM NaP, pH 7.5 + 50 mM NaCl.
<b>Purity</b>	Purity Greater than 95% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
<b>Bio-activity</b>	Measured by its ability to induce osteoclast formation on mouse RAW264.7 cells using a concentration of 5.0-10.0 ng/ml.
<b>Physical Appearance</b>	Sterile Filtered white lyophilized (freeze-dried) powder.
<b>Solubility</b>	Centrifuge vial before opening. When reconstituting the product, gently pipet and

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wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg $\mu$ s/ml, which can be further diluted into other aqueous solutions.

**Purity Greater than 95% as determined by**

Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.

**Protein Content determined by**

UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.

**Endotoxin Level**

Endotoxin level as measured by LAL is <0.01ng/ug or <0.1EU/ug.

**Amino acid sequence**

PAMMEGSWLD VAQRGKPEAQ PFAHLTINAA SIPSGSHKVT LSSWYHDRGW  
AKISNMTLSN GKLRVNQDGF YYLYANICFR HHETSGSVPT DYQLQMVYVV  
KTSIKIPSSH NLMKGGSTKN WSGNSEFHFY SINVGGFFKL RAGEEISIQV  
SNPSLLDPDQ DATYFGAFKV QDID

**Storage**

Lyophilized product is very stable at -20 degrees. Reconstituted material should be aliquoted and frozen at -20. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.

## GENE INFORMATION

**Gene Name**

Tnfsf11 tumor necrosis factor (ligand) superfamily, member 11 [ *Mus musculus* ]

**Official Symbol**

Tnfsf11

**Synonyms**

Tnfsf11; tumor necrosis factor (ligand) superfamily, member 11; ODF; OPG; OPGL; RANKL; Ly109l; Trance; OPG ligand; osteoprotegerin ligand; osteoclast

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differentiation factor; receptor activator of NF-kappaB ligand; tumor necrosis factor-related activation-induced cytokine; Ly109l

**Gene ID** [21943](#)

**mRNA Refseq** [NM\\_011613](#)

**Protein Refseq** [NP\\_035743](#)

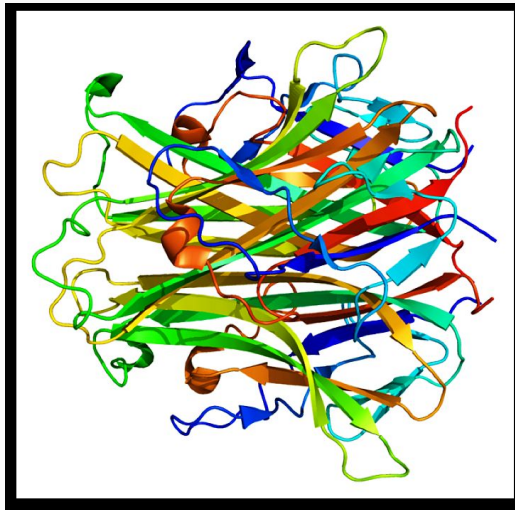
**UniProt ID** [O35235](#)

**Chromosome Location** 14 D3; 14 45.0 cM

**Pathway** Cytokine-cytokine receptor interaction

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

**PDB rendering based on 1s55**



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