

Active Recombinant Mouse tumor necrosis factor superfamily, member 11 Protein, His&GST tagged

Cat. No. Tnfsf11-228M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse TRANCE/RANK L/TNFSF11 protein (O35235) (Pro 143-Asp 316) with both GST and His tag at the N-terminus was expressed E. coli.
Species	Mouse
Source	E.coli
ProteinLength	143-316aa
Description	Cytokine that binds to TNFRSF11B/OPG and to TNFRSF11A/RANK. Osteoclast differentiation and activation factor. Augments the ability of dendritic cells to stimulate naive T-cell proliferation. May be an important regulator of interactions between T-cells and dendritic cells and may play a role in the regulation of the T-cell-dependent immune response. May also play an important role in enhanced bone-resorption in humoral hypercalcemia of malignancy. Induces osteoclastogenesis by activating multiple signaling pathways in osteoclast precursor cells, chief among which is induction of long lasting oscillations in the intracellular concentration of Ca^{2+} resulting in the activation of NFATC1, which translocates to the nucleus and induces osteoclast-specific gene transcription to allow differentiation of osteoclasts. During osteoclast differentiation, in a TMEM64 and ATP2A2-dependent manner induces activation of CREB1 and mitochondrial ROS generation necessary for proper osteoclast generation.

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Tag	N-His&GST
Bio-activity	40 ng/mL Recombinant Mouse M-CSF and 50 ng/mL Recombinant Mouse TRANCE/TNFSF11/RANK L induces osteoclast differentiation of the mouse bone marrow cell at day 5.
Molecular Mass	47.7 kDa
Endotoxin	Less than 1.0 EU/μg by the LAL method.
Purity	>90% as determined by SDS-PAGE.
Storage	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution	Reconstitute at 100 μg/mL in sterile water.
GENE INFORMATION	
Gene Name	Tnfsf11 tumor necrosis factor (ligand) superfamily, member 11 [Mus musculus (house mouse)]
Official Symbol	Tnfsf11
Synonyms	TNFSF11; tumor necrosis factor (ligand) superfamily, member 11; tumor necrosis factor ligand superfamily member 11; OPG ligand; osteoprotegerin ligand; osteoclast differentiation factor; receptor activator of NF-kappaB ligand; TNF-related activation-

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induced cytokine; receptor activator of nuclear factor kappa B ligand; receptor activator of nuclear factor kappa-B ligand; tumor necrosis factor-related activation-induced cytokine; ODF; OPG; OPGL; RANKL; Ly109I; Trance;

Gene ID [21943](#)

mRNA Refseq [NM_011613](#)

Protein Refseq [NP_035743](#)

UniProt ID [O35235](#)

Protein on SDS-PAGE under reducing (R) condition.

