

Recombinant Human Tumor Necrosis Factor (Ligand) Superfamily, Member 11

Cat. No. TNFSF11-117H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human sRANKL produced in <i>E. Coli</i> is a single, non-glycosylated polypeptide chain containing 176 amino acids and having a molecular mass of 20006 Dalton. CD254 is purified by proprietary chromatographic techniques.
Species	Human
Source	E.coli
Description	RANKL 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. sRANKL may also play an important role in enhanced bone-resorption in humoral hypercalcemia of malignancy.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	The protein was lyophilized from a concentrated (1mg/ml) solution containing 10mM Tris, pH-7.6 and 50mM sodium chloride.
Solubility	It is recommended to reconstitute the lyophilized sRANKL in sterile 18MΩ-cm H2O

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not less than 100g/ml, which can then be further diluted to other aqueous solutions.

Amino Acid Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Glu-Lys-Ala-Met.

Biological Activity

The activity is determined by its ability to induce osteoclast formation in RAW264.7 cells using a conc. of 5.0-10.0 ng/ml and by dose dependant stimulation of IL-8 production in human PBMC which was found to be <10ng/ml.

Storage

Lyophilized TNFSF11 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution sRANKL should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name

TNFSF11 tumor necrosis factor (ligand) superfamily, member 11 [Homo sapiens]

Synonyms

TNFSF11; tumor necrosis factor (ligand) superfamily, member 11; ODF; OPGL; sOdf; CD254; OPTB2; RANKL; TRANCE; hRANKL2; tumor necrosis factor ligand superfamily, member 11; OTTHUMP00000178585; osteoprotegerin ligand; osteoclast differentiation factor; TNF-related activation-induced cytokine; receptor activator of nuclear factor kappa B ligand; Tumor necrosis factor ligand superfamily member 11, membrane form; Tumor necrosis factor ligand superfamily member 11, soluble form; CD254 antigen; Osteoprotegerin ligand

Gene ID

8600

mRNA Refseq

NM_003701

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Protein Refseq NP_003692

MIM 602642

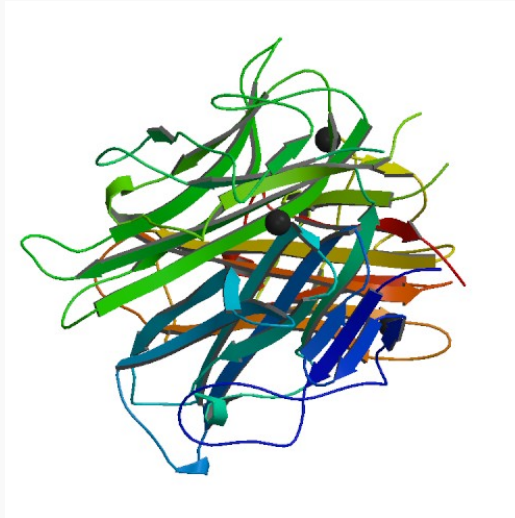
UniProt ID O14788


Chromosome Location 13q14

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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