Recombinant Human TNFSF11

Cat. No. TNFSF11-1679H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	
Species	Human
Source	Mammalian Cells
Description	RANKL (Receptor Activator for Nuclear Factor κ B Ligand), also known as TNF-related activation-induced cytokine (TRANCE), osteoprotegerin ligand (OPGL), and ODF (osteoclast differentiation factor), is a member of the tumor necrosis factor family cytokine. RANKL is essential for osteoclast formation, activation, and survival. RANKL through interaction with its receptor RANK can modulate matrix degradation and inflammation. RANKL and RANK have essential roles in lymph node formation, establishment of the thymic microenvironment, and development of a lactating mammary gland during pregnancy. Consequently, novel drugs specifically targeting RANK, RANKL, and their signaling pathways in osteoclasts are expected to revolutionize the treatment of various ailments associated with bone loss, such as arthritis, periodontal disease, cancer metastases, and osteoporosis.
Molecular Weight	The predicted molecular weight of Recombinant Human sRANKL is Mr 23 kDa. However, the actual molecular weight as observed by migration on SDS Page is Mr 35 kDa.
State Of Matter	Lyophilized.
Purity	>90% by SDS Page and analyzed by silver stain.

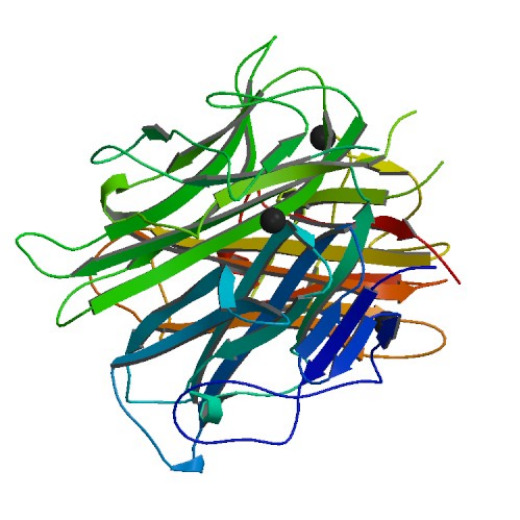
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Formulation	This recombinant protein was 0.2 μm filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 – 7.3 with no calcium, magnesium, or preservatives.
Endotoxin	<1.0 EU/μg as determined by the LAL method.
Biological Activity	The biological activity of Human sRANKL was determined by its ability to induce osteoclast differentiation on mouse splenocytes. The expected ED50= 5-15 ng/ml in the presence of 2.5 μg/ml of the cross-linking antibody, Anti-PolyHistidine.
Storage And Stability	This lyophilized protein is stable for six to twelve months when stored desiccated at -20℃ to -70℃. After aseptic reconstitution, this protein may be stored at 2℃ to 8℃ for one month or at -20℃ to -70℃ in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles. See Product Insert for exact lot specific storage instructions.

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

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mRNA Refseq	NM_003701
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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