

# sRANK Receptor, human recombinant

<b>CATALOG #:</b>	7193-10	10 µg
	7193-50	50 µg
<b>ALTERNATE NAMES:</b>	soluble Receptor Activator of NFκB Ligand, TNFSF11, TRANCE (TNF-related activation-induced cytokine), OPGL, ODF (Osteoclast differentiation factor)	
<b>SOURCE:</b>	E coli	
<b>PURITY:</b>	≥ 98% by SDS-PAGE gel and HPLC analyses	
<b>MOL. WEIGHT:</b>	19.3 kDa	
<b>ENDOTOXIN LEVEL:</b>	< 0.1 ng/µg of protein (<1EU/µg).	
<b>FORM:</b>	Lyophilized	
<b>FORMULATION:</b>	Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM Sodium Phosphate, pH 7.2.	
<b>STORAGE CONDITIONS:</b>	Store at -20°C. After reconstitution, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.	

**RECONSTITUTION:**

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

**DESCRIPTION:**

RANKL and RANK are members of the TNF superfamily of ligands and receptors that play an important role in the regulation of specific immunity and bone turnover. RANK (receptor) was originally identified as a dendritic-cell-membrane protein, which by

interacting with RANKL augments the ability of dendritic cells to stimulate naïve T-cell proliferation in a mixed lymphocyte reaction, to promote the survival of RANK + T cells, and to regulate T-cell-dependent immune response. RANKL, which is expressed in a variety of cells including osteoblasts, fibroblasts, activated T-cells and bone marrow stromal cells, is also capable of interacting with a decoy receptor called OPG. Binding of soluble OPG to sRANKL inhibits osteoclastogenesis by interrupting the signaling between stromal cells and osteoclastic progenitor cells, thereby leading to excess accumulation of bone and cartilage. Recombinant rat sRANKL is a 19.4 kDa polypeptide comprising the TNF homologous region of RANKL (174 amino acid residues).

**AMINO ACID SEQUENCE:**

MQIAPPCTSE KHYEHLGRCC NKCEPGKYMS SKCTTTSDSV CLPCGPDEYL  
DSWNEEDKCL LHKVCDTGKA LVAVVAGNST TPRRCACTAG YHWSQDCECC  
RRNTECAPGL GAQHPLQLNK DTVCKPCLAG YFSDAFSSTD KCRPWTNCTF  
LGKRVEHHGT EKSDAVCSSS LPARK

**BIOLOGICAL ACTIVITY:**

Determined by its ability to inhibit sRANKL induced NFκappaB in RAW264.7 cells in the absence of any cross-linking. The expected ED<sub>50</sub> for this effect in the presence of 15 ng/ml of recombinant sRANKL, is 30-50 ng/ml.

**RELATED PRODUCTS:**

- sRANK Ligand, rat recombinant (**Cat. No. 7192-10, -50**)
- RANK (sRANKL), human recombinant (**Cat. No. 4318-10, -50, -1000**)
- sRANKL, murine recombinant (**Cat. No. 4557-10, -50, -1000**)

**FOR RESEARCH USE ONLY! Not to be used in humans.**