

# sRANK Ligand, rat recombinant

<b>CATALOG #:</b>	7192-10	10 µg
	7192-50	50 µg
<b>ALTERNATE NAMES:</b>	TNFRSF11A, ODFR (osteoclast differentiation factor receptor), ODAR (osteoclast differentiation and activation receptor), TRANCE Receptor	
<b>SOURCE:</b>	E coli	
<b>PURITY:</b>	≥ 98% by SDS-PAGE gel and HPLC analyses	
<b>MOL. WEIGHT:</b>	19.4 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 5 mM Sodium Phosphate, pH 7.6 and 75 mM NaCl.	
<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 and to promote the survival of RANK + T cells. RANK is also expressed in a

variety of tissues including skeletal muscle, thymus, liver, colon, small intestine and adrenal gland. The RANK/RANKL interaction is important in the regulation of osteoclastogenesis and in dendritic-cell-mediated T cell immune responses. Impairments in RANK signaling have been implicated in the induction of expansive osteolysis and Paget disease of bone (PDB2). Recombinant human sRANK receptor is a 19.3 kDa polypeptide containing the TNFR homologous cysteine rich portion of the extracellular domain of RANK receptor (175 amino acid residues).

**AMINO ACID SEQUENCE:**

PAMMEGSWLD VARRGKPEAQ PFAHLTINAA DIPSGSHKVS LSSWYHDRGW  
AKISNMTLSN GKLRVNQDGF YYLYANICFR HHETSGSVPA DYQLQMVYVV  
KTSIKIPSSH NLMKGGSTKN WSGNSEHFHY SINVGFFKL RAGEEISVQV  
SNPSLLDPDQ DATYFGAFKV QDID

**BIOLOGICAL ACTIVITY:**

Determined by its ability to induce NFκB in RAW264.7 cells in the absence of any cross-linking. The expected ED<sub>50</sub> for this effect is 10.0-25.0 ng/ml

**RELATED PRODUCTS:**

- sRANK Receptor, human recombinant (**Cat. No. 7193-10, -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.**