

Recombinant Human sRANK Ligand (soluble Receptor Activator of NFκB Ligand)

Product 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. These dendritic cells then stimulate naïve T-cell proliferation in a mixed lymphocyte reaction, promote the survival of RANK + T-cells, and 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. Human RANKL is reactive on murine cells.

Typical Specifications

Species	Human
Expression	E. Coli Cell Expressed
Activity	Typically 10-25 ng/ml ED ₅₀
Purity	>98%
Endotoxin	<1.0 EU/μg
Molecular Mass	20 kDa
Formulation	5 mM Sodium Phosphate, pH 7.6 + 75 mM NaCl
Country of Origin	USA

Purity Confirmation

This was determined by SDS-PAGE gel and HPLC analysis.

Activity Assay

Determined by its ability to induce NF-κB in RAW264.7 cells in the absence of any cross-linking. The expected ED₅₀ for this effect is 10.0-25.0 ng/ml.

AA Sequence

MEKAMVDGSW	LDLAKRSKLE	AQPFAHLTIN
ATDIPSGSHK	VSLSSWYHDR	GWAKISNMTF
SNGKLIVNQD	GFYYLYANIC	FRHHETSGDL
ATEYLQLMVY	VTKTSIKIPS	SHTLMKGGST
KYWSGNSEFH	FYSINVGFF	KLRSGEISI
EVSNPILLDP	DQDATYFGAF	KVRDID

Reconstitution Buffer

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex.

Storage

For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% HSA) and store in working aliquots at -20°C to -80°C.

Limited Use and Restrictions

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