sRANK Ligand Rat E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Rat
Other names: soluble Receptor Activator of NFkB Ligand, TNFSF11, TRANCE (TNF-related activation-induced cytokine), OPGL, ODF (Osteoclast differentiation factor)

Cat. No.:

RBG30070002	(2 µg)
RBG30070010	(10 µg)
RBG30070100	(100 µg)

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. Recombinant Rat sRANKL is a 19.4 kDa polypeptide comprising the TNF homologous region of RANKL (174 amino acid residues).

Research topic

Apoptosis, Bone and cartilage metabolism, Immune Response, Infection and Inflammation

Amino Acid Sequence

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PAMMEGSWLD VARRGKPEAQ PFAHLTINAA DIPSGSHKVS LSSWYHDRGW AKISNMTLSN GKLRVNQDGF YYLYANICFR
HHETSGSVPA DYLQLMVYVV KTSIKIPSSH NLMKGGSTKN WSGNSEFHFY SINVGGFFKL RAGEEISVQV SNPSLLDPDQ
DATYFGAFKV QDID
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Source

E. coli

Purity

98%

Biological Activity

Determined by its ability to induce NF-?B in RAW264.7 cells in the absence of any cross-linking. The expected ED_{50} for this effect is 10.0-25.0 ng/ml.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

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

Storage, Stability/Shelf Life

-20°C

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