TECHNICAL DATA SHEET

Recombinant Human sRANK Receptor (Carrier-Free)

Catalog Number: 21-9181

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

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Recombinant Human sRANK Receptor (Carrier-Free)

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. These dendritic cells then stimulate naïve T-cell proliferation, and 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 expansile osteolysis and Paget's disease of bone (PDB2).

MOLECULAR MASS

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

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

SOURCE	APPLICATIONS	PURITY	STORAGE
E. coli	Bioassay	98 %	-20°C

PROTEIN CONTENT

Content Verified by UV Spectroscopy and/or SDS-PAGE gel.

ENDOTOXIN LEVEL

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

AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

CROSS REACTIVITY

Human, Mouse

BIOACTIVITY

Determined by its ability to inhibit sRANKL induced NF-κB in RAW264.7 cells in the absence of any cross-linking. The expected ED50 for this effect in the presence of 15 ng/ml of recombinant sRANKL, is 30-50 ng/ml.

RESEARCH AREAS

Receptors, TNF-Superfamily, Cancer, Diabetes/Weight Regulation

RECONSTITUTION

See Certificate of Analysis (COA) for lot specific reconstitution information.

REFERENCES

Irie, A. Heparin enhances osteoclastic bone resorption by inhibiting osteoprotegerin activity. 2007. Bone; 41(2):165-74. Newa, M. Antibody-mediated "universal" osteoclast targeting platform using calcitonin as a model drug. 2011. Pharmaceutical Research; 28(5):1131-43.