

Prime Gene Recombinant Human soluble Receptor Activator of Nuclear Factor kappa-B Receptor (rHusRANK Receptor)

PrimeGene Technical Data Sheet

Catalog Number: 103-18R

Source: Escherichia coli.

Molecular Weight: Approximately 19.1 kDa, a single non-glycosylated polypeptide chain containing 174 amino acids.

Quantity: $20\mu g/100\mu g/1000\mu g$

AA Sequence: OIAPPCTSEK HYEHLGRCCN KCEPGKYMSS KCTTTSDSVC LPCGPDEYLD

> SWNEEDKCLL HKVCDTGKAL VAVVAGNSTT PRRCACTAGY HWSQDCECCR RNTECAPGLG AQHPLQLNKD TVCKPCLAGY FSDAFSSTDK CRPWTNCTFL

GKRVEHHGTE KSDAVCSSSL PARK

Purity: > 98 % by SDS-PAGE and HPLC analyses.

Biological Activity: Fully biologically active when compared to standard. The ED₅₀ as determined by its ability to inhibit

> sRANK Ligand induced nuclear factor kappa B(NFkappaB) in RAW 264.7 cells is less than 50 ng/ml, corresponding to a specific activity of $> 2.0 \times 10^4$ IU/mg in the presence of 15 ng/ml of

recombinant sRANK Ligand.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris-HCl, pH 8.0, 150mM NaCl.

Endotoxin: Less than 0.1 EU/µg of rHusRANK Receptor as determined by LAL method.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the

> bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and

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stored at \leq -20 °C. Further dilutions should be made in appropriate buffered solutions.

Shipping: The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature

recommended below.

Stability & Storage: Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

12 months from date of receipt, -20 to -70 °C as supplied.

1 month, 2 to 8 °C under sterile conditions after reconstitution.

3 months, -20 to -70 °C under sterile conditions after reconstitution.

Usage: This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further

evaluation purposes. NOT FOR HUMAN USE.

Human soluble Receptor Activator of Nuclear Factor kappa-B Receptor

RANK Ligand and RANK Receptor are members of the TNF superfamily 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-cellmediated T cell immune responses. Impairments in RANK signaling have been implicated in the induction of expansile osteolysis and Paget disease of bone (PDB2). Recombinant human sRANK receptor is a 19.1 kDa polypeptide containing the TNFR homologous cysteine rich portion of the extracellular domain of RANK receptor (174 amino acid residues).

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