RANK Receptor, soluble, human recombinant (rHuRANKReceptor)

Catalog No: 97643
Lot No: XXXXX
Source: *E. coli*
Synonyms: Tumor necrosis factor receptor superfamily member 11A, Osteoclast differentiation factor receptor, ODFR, Receptor activator of NF-KB, FEO; OFE; ODFR; OSTS; PDB2; RANK; CD265; OPTB7; TRANCER; LOH18CR1

Background

sRANK Receptor is a part of of the TNF superfamily of ligands and receptors which participates in the regulation of specific immunity and bone turnover. sRANK Receptor was originally acknowledged as a dendritic-cell-membrane protein, which by interacting with RANKL augments the capacity of dendritic cells to stimulate native T cell proliferation and to endorse the survival of RANK and T cells. The full length human RANK cDNA encodes a type I transmembrane protein of 616 amino acids with a predicted 183 amino acid extracellular domain and a 383 amino acid cytoplasmic domain. sRANK Receptor is also expressed in a various tissues including skeletal muscle, thymus, liver, colon, small intestine and adrenal gland.

Description

sRANK Receptor Human Recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 174 amino acids and having a molecular mass of 19.1 kDa. sRANK Receptor is purified by proprietary chromatographic techniques.

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 and 150 mM NaCl.

Solubility

It is recommended to reconstitute the lyophilized Leukemia Inhibitory Factor (LIF) in sterile water not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Leukemia Inhibitory Factor (LIF) although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Leukemia Inhibitory Factor (LIF) should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 98.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

QIAPPCTSEK HYEHLGRCCN KCEPGKYMSS KCTTTSDSVC LPCGPDEYLD SWNEEDKCLL HKVCDTGKAL VAVVAGNSTT PRRCACTAGY HWSQDCECCR RNTECAPGLG AQHPLQLNKD TVCKPCLAGY FSDAFSSTDK CRPWTNCTFL GKRVEHHGTE KSDAVCSSSL PARK

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 x 10^4 IU/mg in the presence of 15 ng/ml of recombinant sRANK Ligand.

Usage

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