RANK ligand, soluble, human recombinant (rHusRANKL)

Catalog No: 94946
Lot No: XXXXX
Source: *E. coli*
Synonyms: Soluble Receptor Activator of NFkB Ligand, TNFSF11, TRANCE, TNF-related activation-induced cytokine, OPGL, ODF, Osteoclast differentiation factor, Tumor necrosis factor ligand superfamily member 11, Receptor activator of nuclear factor kappa B ligand, RANKL, Osteoprotegerin ligand, CD254 antigen, sRANKL, sOdf, hRANKL2

Background

RANKL binds to tnfrsf11b/opg and to tnfrsf11a/rank. Osteoclast differentiation and activation factor. Augments the ability of dendritic cells to stimulate naive t-cell proliferation. May be an important regulator of interactions between t-cells and dendritic cells and may play a role in the regulation of the t-cell-dependent immune response. sRANKL may also play an important role in enhanced bone-resorption in humoral hypercalcemia of malignancy.

Description

sRANKL human recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 176 amino acids and having a molecular mass of 20006 Dalton. sRANKL is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a concentrated (1 mg/ml) solution containing 10 mM Tris, pH 7.5.

Solubility

It is recommended to reconstitute the lyophilized sRANKL in sterile 18 MΩ-cm H_2O at a concentration of 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized TNFSF11, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution sRANKL 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

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MEKAMVDGSW LDLAKRSKLE AQPFAHLTIN ATDIPSGSHK VSLSSWYHDR GWAKISNMTF SNGKLIVNQD GFYYLYANIC
FRHHETSGDL ATEYLQLMVY VTKTSIKIPS SHTLMKGGST KYWSGNSEFH FYSINVGGFF KLRSGEEISI EVSNPSLLDP
DQDATYFGAF KVRDID
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Activity

The activity is determined by its ability to induce osteoclast formation in RAW264.7 cells using a concentration of 5 – 10 ng/ml, corresponding to a specific activity of 100 000 – 200 000 units/mg and by dose-dependent stimulation of IL-8 production in human PBMC.

Usage

This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.