

Recombinant Human Soluble RANK ligand

Certificate of Analysis and Data Sheet

➤ Source: E.Coli	➤ Catalog No. CTK-334
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➤ **Description :**

Recombinant Human soluble RANKL produced in E.Coli is a single, non-glycosylated polypeptide chain containing 176 amino acids and having a molecular mass of 20006 Dalton.

Recombinant sRANKL is purified by proprietary chromatographic techniques.

➤ **Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

➤ **Formulation:**

Recombinant Soluble RANK ligand was lyophilized from a concentrated (1mg/ml) solution containing 10mM Tris, pH-7.6 and 50mM sodium chloride.

➤ **Solubility:**

It is recommended to reconstitute the lyophilized RANKL in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

➤ **Stability:**

Lyophilized sRANKL although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution RANK ligand 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 avoid freeze-thaw cycles.

➤ **Purity:**

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

➤ **Amino acid sequence:**

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Glu-Lys-Ala-Met.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This RANK ligand is fully biologically active when compared to standard. The activity is determined by its ability to induce osteoclast formation in RAW264.7 cells using a conc. of 5.0-10.0 ng/ml and by dose dependant stimulation of IL-8 production in human PBMC which was found to be <10 ng/ml.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of hIL-20.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm.
2. Analysis by RP-HPLC, using a calibrated solution of Soluble RANK ligand as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.