

RANKL/TNFSF11/CD254 Protein, Human, Recombinant (aa 63-244)

General Information

Synonyms:	OPGL;TRANCE;OPTB2;TNFSF11;ODF;sOdf;RANKL;CD254
Protein Construction:	Gly63-Asp244
Species:	Human
Expression Host:	HEK293 Cells
Accession:	O14788-2
Molecular Weight:	20.5 kDa (predicted). Due to glycosylation, the protein migrates to 30-60 kDa based on Tris-Bis PAGE resu

QC Testing

Biological Activity:	<ol style="list-style-type: none">1. Immobilized Human RANKL, No Tag at 2µg/ml (100µl/well) on the plate. Dose response curve for Human TNFRSF11A, hFc Tag with the EC50 of 13.6ng/ml determined by ELISA (QC Test).2. Human TNFRSF11B, His Tag captured on CM5 Chip via Anti-His Antibody can bind Human RANKL, No Tag with an affinity constant of 0.030 nM as determined in SPR assay.
Purity:	> 90% as determined by Tris-Bis PAGE; > 90% as determined by HPLC
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Receptor activator of nuclear factor κ B (RANK) and its ligand (RANKL) have originally been described for their key roles in bone metabolism and the immune system. Subsequently, it has been shown that the RANKL-RANK

system is critical in the formation of mammary epithelia in lactating females and the thermoregulation of the central nervous system. RANKL and RANK are under the tight control of the female sex hormones estradiol and progesterone.

Reference

Nagy V, Penninger JM. The RANKL-RANK Story. *Gerontology*. 2015;61(6):534-42. doi: 10.1159/000371845. Epub 2015 Feb 14. PMID: 25720990.

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