# Recombinant Human TNFRSF11A

Catalog # FL025

## Product Specifications

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| Appearance | Sterile filtered White lyophilized (freeze-dried) powder. |
| Purity | > 98% by SDS-PAGE or HPLC. |
| Endotoxin | < 0.1 EU/μg of rHusRANK Receptor/TNFRSF11A protein as determined by LAL method. |
| Expression System | Expressed in E. coli. |
| Species | Human |
| Tag | Tag free. |
| Activity | Fully biologically active when compared to standard. The ED50 as determined by its ability to inhibit sRANKL induced nuclear f actor kappa B(NF-κB) in RAW 264.7 cells is less than 50 ng/ml, corresponding to a specific activity of ≥ 2.0×10^4 IU/mg in th e presence of 15 ng/ml of recombinant sRANKL. |
| Formulation | Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM Tris-HCl, 150 mM NaCl, pH 8.0. |
| Reconstitution | Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a 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 stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions. |
| Accession # | Q9Y6Q6 Gln29-Lys202 |
| Amino acid sequence | QIAPPCTSEKHYEHLGRCCNKCEPGKYMSSKCTTTSDSVCLPCGPDEYLDSWNEEDKCLLHKVCDTGKALVAVVAGNSTTP RRCACTAGYHWSQDCECCRRNTECAPGLGAQHPLQLNKDTVCKPCLAGYFSDAFSSTDKCRPWTNCTFLGKRVEHHGTEK SDAVCSSSLPARK |
| Molecular weight | Approximately 19.1 kDa, a single non-glycosylated polypeptide chain containing 174 amino acids. |
| Synonyms | Osteoclast differentiation factor receptor (ODFR)，CD256 |
| Stability & Storage | For long term storage, the product should be stored ≤ -20°C. Please avoid repeated freeze-thaw cycles after reconstitution. 36 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. |
| Precautions | Recombinant Human TNFRSF11A is for research use only and not for use in diagnostic or therapeutic procedures. |

## Background

Human soluble Receptor Activator of NF-κB 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 na ve 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 o steoclastogenesis and in dendritic-cell mediated 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 19.1kDa polypeptide containing the TNFR homologous cysteine rich portion of the extracellular domain of RANK receptor.

## Validation Images