

## Recombinant Human RANKL/TNFSF11 Protein (His Tag)

**Catalog Number:** PKSH032986

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

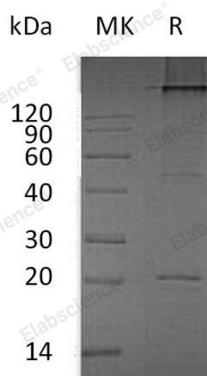
### Description

<b>Species</b>	Human
<b>Source</b>	E.coli-derived Human RANKL;TNFSF11 protein Glu 143-Asp317, with an C-terminal His
<b>Calculated MW</b>	20.7 kDa
<b>Observed MW</b>	17 kDa
<b>Accession</b>	O14788
<b>Bio-activity</b>	Measure by its ability to induce osteoclast differentiation in RAW264.7 cells. The ED <sub>50</sub> for this effect is <10 ng/mL.

### Properties

<b>Purity</b>	> 98 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 0.1 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS,pH 8.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 98 % as determined by reducing SDS-PAGE.

### Background

#### For Research Use Only

CD254, also known as RANKL, TNFSF11, TRANCE, OPG and ODF, is a type II membrane protein of the tumor necrosis factor (TNF) superfamily, and affects the immune system and control bone regeneration and remodeling. RANKL is the ligand of nuclear factor (NF)- $\kappa$ B (RANK). When RANKL binds to RANK, it will undergo trimerization and then bind to an adaptor molecule TNF receptor-associated factor 6 (TRAF6). This results in the activation of several downstream signaling cascades, including the NF $\kappa$ B, mitogen-activated protein kinases (MAPK), activating protein 1 (AP-1), and nuclear factor of activated T cells (NFATc1), resulting in the formation of multinucleated bone-resorbing osteoclasts. RANKL is widely expressed in skeletal muscle, thymus, liver, colon, small intestine, adrenal gland, osteoblast, mammary gland epithelial cells, prostate and pancreas.

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