Recombinant human RANKL protein (Active) ab9958

1 References

**Description**

**Product name**
Recombinant human RANKL protein (Active)

**Biological activity**
Determined by its dose-dependent ability to induce reporter gene in HT-29 NF-κB Luc reporter cells.

**Purity**
>= 98% SDS-PAGE.<br>=98% HPLC analyses. Sterile filtered.

**Endotoxin level**
< 1.000 Eu/µg

**Expression system**
Escherichia coli

**Accession**
O14788

**Protein length**
Protein fragment

**Animal free**
No

**Nature**
Recombinant

**Species**
Human

**Sequence**
MEKAMVDGSW LDLAKRSLLE AQPFAHLTIN<br>ATDIPSMSHK VSLSSWYHDR GWAKISNMTF<br>SNGKLVQOD GFYLYANC FRHHETSGL<br>ATEYLQLMVYVTKTSIKPS SHTLMKGGST<br>KYWSGNSEFH FYSINVGFF KLRSGEESI<br>EVSNPSLLDP DQDATYFGAF KVRDID

**Predicted molecular weight**
20 kDa

**Amino acids**
143 to 317

**Additional sequence information**
Comprises the TNF-homologous region of RANKL.

**Specifications**

Our *Abpromise guarantee* covers the use of ab9958 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications**
HPLC

Functional Studies

SDS-PAGE

**Form**
Lyophilised
### Preparation and Storage

**Stability and Storage**

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 7.60
Constituents: 0.082% Sodium phosphate, 0.435% Sodium chloride

This product is an active protein and may elicit a biological response in vivo, handle with caution.

**Reconstitution**

For lot specific reconstitution information, please contact our Scientific Support Team.

### General Info

**Function**

Cytokine that 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. May also play an important role in enhanced bone-resorption in humoral hypercalcemia of malignancy.

**Tissue specificity**

Highest in the peripheral lymph nodes, weak in spleen, peripheral blood leukocytes, bone marrow, heart, placenta, skeletal muscle, stomach and thyroid.

**Involvement in disease**

Defects in TNFSF11 are the cause of osteopetrosis autosomal recessive type 2 (OPTB2) [MIM:259710]; also known as osteoclast-poor osteopetrosis. Osteopetrosis is a rare genetic disease characterized by abnormally dense bone, due to defective resorption of immature bone. The disorder occurs in two forms: a severe autosomal recessive form occurring in utero, infancy, or childhood, and a benign autosomal dominant form occurring in adolescence or adulthood. Autosomal recessive osteopetrosis is usually associated with normal or elevated amount of non-functional osteoclasts. OPTB2 is characterized by paucity of osteoclasts, suggesting a molecular defect in osteoclast development.

**Sequence similarities**

Belongs to the tumor necrosis factor family.

**Post-translational modifications**

The soluble form of isoform 1 derives from the membrane form by proteolytic processing (by similarity). The cleavage may be catalyzed by ADAM17.

**Cellular localization**

Cytoplasm; Secreted and Cell membrane.

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