

ARG70369

Human CD254 / RANKL recombinant protein (Active) (His-tagged, C-ter)

Package: 100 µg, 20 µg

Store at: -20°C

Summary

Product Description	E. coli expressed, His-tagged (C-ter) Active Human CD254 / RANKL recombinant protein
Tested Application	SDS-PAGE
Target Name	CD254 / RANKL
Species	Human
A.A. Sequence	Glu143 - Asp317
Expression System	E. coli
Activity	Active
Activity Note	Determined by its ability to induce osteoclast differentiation in RAW264.7 cells. The ED50 for this effect is < 10 ng/mL.
Alternate Names	TRANCE; Osteoprotegerin ligand; CD254; sOdf; Receptor activator of nuclear factor kappa-B ligand; OPTB2; RANKL; OPGL; Tumor necrosis factor ligand superfamily member 11; hRANKL2; TNF-related activation-induced cytokine; Osteoclast differentiation factor; ODF; CD antigen CD254

Properties

Form	Powder
Purification Note	Endotoxin level is less than 0.1 EU/µg of the protein, as determined by the LAL test.
Purity	> 98% (by SDS-PAGE)
Buffer	PBS (pH 8.0)
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile water to a concentration not less than 200 µg/mL and incubate the stock solution for at least 20 min at room temperature to make sure the protein is dissolved completely.
Storage instruction	For long term, lyophilized protein should be stored at -20°C or -80°C. After reconstitution, aliquot and store at -20°C or -80°C for up to one month. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	TNFSF11
Gene Full Name	tumor necrosis factor (ligand) superfamily, member 11
Background	This gene encodes a member of the tumor necrosis factor (TNF) cytokine family which is a ligand for osteoprotegerin and functions as a key factor for osteoclast differentiation and activation. This protein was shown to be a dentritic cell survival factor and is involved in the regulation of T cell-dependent immune response. T cell activation was reported to induce expression of this gene and lead to an increase of osteoclastogenesis and bone loss. This protein was shown to activate antiapoptotic kinase AKT/PKB through a signaling complex involving SRC kinase and tumor necrosis factor receptor-

associated factor (TRAF) 6, which indicated this protein may have a role in the regulation of cell apoptosis. Targeted disruption of the related gene in mice led to severe osteopetrosis and a lack of osteoclasts. The deficient mice exhibited defects in early differentiation of T and B lymphocytes, and failed to form lobulo-alveolar mammary structures during pregnancy. Two alternatively spliced transcript variants have been found. [provided by RefSeq, Jul 2008]

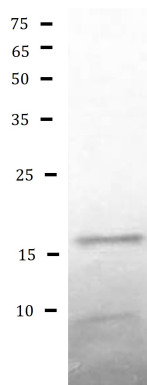
Function

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. [UniProt]

PTM

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

Images



ARG70369 Human CD254 / RANKL recombinant protein (Active) (His-tagged, C-ter) SDS-PAGE image

SDS-PAGE analysis of ARG70369 Human CD254 / RANKL recombinant protein (Active) (His-tagged, C-ter).