



[Go to Product page](#)

Datasheet for ABIN1019704
RANKL Protein (AA 70-244)

2 Images

Overview

Quantity:	100 µg
Target:	RANKL (TNFSF11)
Protein Characteristics:	AA 70-244
Origin:	Human
Source:	Tobacco (Nicotiana benthamiana)
Protein Type:	Recombinant
Application:	Western Blotting (WB), Immunogen (Imm)

Product Details

Sequence:	HHHHHHHHHH EKAMVDGSWL DLAKRSKLEA QPFAHLTINA TDIPSGSHKV SLSSWYHDRG WAKISNMTFS NGKLIVNQDG FYYLYANICF RHHETSGDLA TEYLQLMVYV TKTSIKIPSS HTLMKGGSTK YWSGNSEFHF YSINVGFFK LRSGEEISIE VSNPSSLDPD QDATYFGAFK VRDID
Specificity:	Serological Identification: The protein was analysed by Dot-blot with specific antibodies
Characteristics:	Molecular Formula: C952H1414N262O276S5 Isoelectric Point: 6.82 Extinction Coefficient: E 0.1 % (1g/L) = 1.678 (A 280 nm)
Endotoxin Level:	< 0.04 EU/µg protein (LAL method)

Target Details

Target:	RANKL (TNFSF11)
Abstract:	TNFSF11 Products

Target Details

Background: Synonyms: Tumor necrosis factor ligand superfamily member 11 (TNFSF11), Osteoprotegerin ligand (OPGL), TNF-related activation-induced cytokine (TRANCE)

Recombinant human RANKL is a member of TNF super family, a cytokine that play a central role in bone remodelling and disorders of mineral metabolism. It was shown to be a dendritic cell survival factor, T-cell activator and osteoclast regulator because RANKL mediates the osteoclast differentiation, survival and activation. Native RANKL is a type II trans-membrane protein with an extracellular binding domain that interacts with RANK and OPG receptors. OPG protects the skeleton from excessive bone resorption by binding to RANKL and preventing it from binding to its receptor, RANK. Thus, RANKL/OPG ratio became an important determinant of bone mass and skeletal integrity. In addition, this protein was shown to activate anti-apoptotic kinase AKT/PKB through a signalling complex involving SRC kinase and tumor necrosis factor receptor-associated factor (TREF). Recent findings shown that OPG/RANK/RANKL system has been identifies as a possible mediator of arterial calcification suggesting common links between osteoporosis and vascular diseases.

Molecular Weight: 21.1 kDa

UniProt: [O14788](#)

Pathways: [NF-kappaB Signaling](#)

Application Details

Comment: rhuman sRANKL is a glycosylated polypeptide chain containing 175 amino acids (70 - 244 aa of O14788 TNF11_HUMAN) and a His-tag at the N-terminal end. It has a predicted molecular mass of 21.1 kDa, however as result of glycosylation, the recombinant protein could migrate as two bands with an apparent molecular mass of 21-23 kDa in SDSPAGE. Human recombinant protein expressed in Nicotiana benthamiana. Recombinant human Receptor activator of nuclear factor kappa-B ligand (sRANK-ligand) contains a 10-His-tag at the N-terminal end, is produced by transient expression in non-transgenic plants and is purified by sequential chromatography (FPLC). This product contains no animal-derived components or impurities. Animal free product. The protein was resolved by SDS polyacrylamide gel electrophoresis and the gel was stained with coomassie blue.

Restrictions: For Research Use only

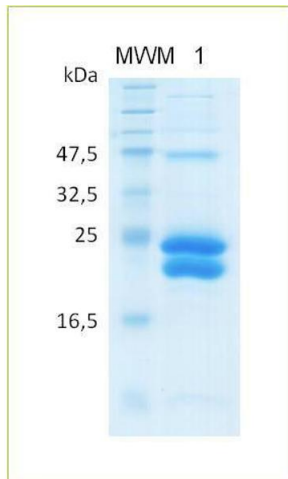
Handling

Format: Lyophilized

Handling

Reconstitution:	Lyophilized protein should be reconstituted in water to a concentration of 200 ng/ μ L. Optimal concentration should be determined for specific application and cell lines.
Buffer:	10 mM Phosphate Potassium buffer pH 8 and 0.2 M NaCl
Storage:	4 °C

Images



SDS-PAGE

Image 1. SDS-PAGE analysis of recombinant sRANKL. Samples were loaded in 15 % SDS-polyacrylamide gel and stained with Coomassie blue. Lane MWM: Molecular weight marker (kDa), lane 1 contains 1 μ g of rhuman sRANKL. All bands have been identified by MALDI-TOFF as human RANKL.

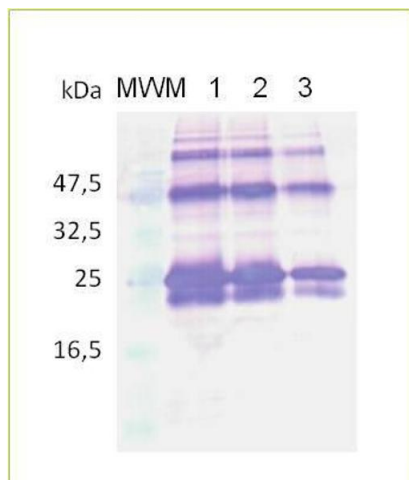


Image 2. Analysis of rhuman sRANKL with specific antibody by Western Blot, Lane MWM: Molecular weight marker (kDa), lane 1 contains 1 lane 2 contains 0.5 μ g and lane 3 contains 0.1 μ g of rhuman sRANKL. All bands have been identified by MALDI-TOFF as human RANKL.