Datasheet for ABIN1112027

RANKL Protein (AA 70 – 244) (His tag)

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Overview

Quantity:	100 µg
Target:	RANKL (TNFSF11)
Protein Characteristics:	AA 70 – 244
Origin:	Human
Host:	Please inquire
Protein Type:	Recombinant
Purification tag / Conjugate:	This RANKL protein is labelled with His tag.
Application:	Western Blotting (WB), Immunogen (Imm), Cell Culture (CC)

Product Details

Sequence:	HHHHHHHHHH EKAMVDGSWL DLAKRSKLEA QPFAHLTINA TDIPSGSHKV SLSSWYHDRG WAKISNMTFS NGKLIVNQDG FYYLYANICF RHHETSGDLA TEYLQLMVYV TKTSIKIPSS HTLMKGGSTK YWSGNSEFHF YSINVGGFFK LRSGEEISIE VSNPSLLDPD QDATYFGAFK VRDID
Specificity:	Serological Identification: The protein was electrophoresed under reducing condition on a 15 % SDS-polyacrylamide gel, transferred by electro blotting to a NC membrane and visualized by immune-detection with specific RANKL antibody.
Characteristics:	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. This product contains no animal-derived components or impurities. Animal free product. Ext. Coeff. Abs (280nm) 0.1 % (=1g/l): E 0.1 % (1g/L) = 1.678 (A 280 nm) p.I.: 6,82

Product Details

	Biological Activity: The specific activity is determined by the dose-dependent stimulation of IL-8 production in human PBMC. Activity results may vary with PBMC donors. Biological Activity ng/ml: Human PBMC stimulated with 10 ng/ml of Human recombinant sRANKL increases in three times the basal production of IL-8.
Purification:	sequential chromatography (FPLC)
Purity:	> 97 % by SDS-PAGE gel
Endotoxin Level:	< 0.04 EU/µg protein (LAL method)

Target Details

Target:	RANKL (TNFSF11)
Abstract:	TNFSF11 Products
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 (TREAF). 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
Pathways:	NF-kappaB Signaling

Application Details

Restrictions:	For Research Use only

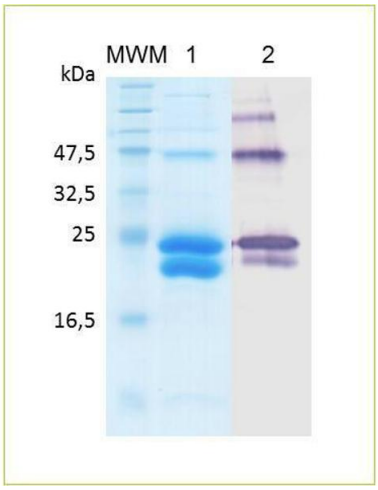
Handling

Format:	Lyophilized
Reconstitution:	Lyophilized protein should be reconstituted in water following instructions of batch Quality Control sheet. At higher concentrations the solubility may be reduced and multimers generated. Optimal concentration should be determined for specific application and cell lines.
Buffer:	10 mM Phosphate Potasium buffer pH 8 and 0.2 M NaCl
Handling Advice:	Reconstituted protein should be stored in working aliquots at -20 °C. Repeated freezing and thawing is not recommended.
Storage:	4 °C

Publications

Product cited in:	Lang, Schulte, Goddard, Hedrick, Schulte, Wei, Schmiedt: "Transplantation of mouse embryonic stem cells into the cochlea of an auditory-neuropathy animal model: effects of timing after injury." in: **Journal of the Association for Research in Otolaryngology : JARO**, Vol. 9, Issue 2, pp. 225-40, (2008) (PubMed). Lang, Ebihara, Schmiedt, Minamiguchi, Zhou, Smythe, Liu, Ogawa, Schulte: "Contribution of bone marrow hematopoietic stem cells to adult mouse inner ear: mesenchymal cells and fibrocytes." in: **The Journal of comparative neurology**, Vol. 496, Issue 2, pp. 187-201, (2006) (PubMed).

Validation report #028889 for Immunofluorescence (IF)



SDS-PAGE

Image 1. SDS-PAGE and Western blot analysis of human recombinant sRANKL. Lane MWM: molecular weight marker (kDa). Lane1: coomassie blue 1 µg of recombinant sRANKL and lane 2: 0.1 µg of recombinant sRANKL. All the bands shown in lanes 1-2 have been identify by MALDI-TOFF as recombinant sRANKL.