Recombinant Human TNFSF11, His-tagged, Animal Free

Cat. No. TNFSF11-144H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	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.
Species	Human
Source	Nicotiana Benthamiana
Description	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

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	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.
Form	Recombinant human RANKL is lyophilized from 10mM Phosphate Potasium buffer pH 8 and 0.2M NaCl.
Molecular Mass	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 prot
AA Sequence	HHHHHHHHHHEKAMVDGSWLDLAKRSKLEAQPFAHLTINATDIPSGSHKVSLSSWY HDRGWAKISNMTFSNGKLI VNQDGFYYLYANICFRHHETSGDLATEYLQLMVYVTK TSIKIPSSHTLMKGGSTKYWSGNSEFHFYSINVGGFFK LRSGEEISIEVSNPSLLDPD QDATYFGAFKVRDID
Endotoxin	< 0.04="" eu="" ug="" protein="" (lal="">
Purity	>97% by SDS-PAGE gel
Applications	Western Blot, Immunogen.
Storage	This lyophilized preparation is stable at 2-8o C for short term, long storage it should be kept at -20oC. Reconstituted protein should be stored in working aliquots at –20°C. Repeated freezing and thawing is not recommended.
Reconstitution	Lyophilized protein should be reconstituted in water to a concentration of 200 ng/µl. Optimal concentration should be determined for specific application and cell lines.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	Optimal reconstitution please follow batch Quality Control sheet instructions.

GENE INFORMATION

Gene Name	TNFSF11 tumor necrosis factor (ligand) superfamily, member 11 [Homo sapiens]
Official Symbol	TNFSF11
Synonyms	TNFSF11; tumor necrosis factor (ligand) superfamily, member 11; tumor necrosis factor ligand superfamily member 11; CD254; ODF; OPGL; RANKL; TRANCE; osteoprotegerin ligand; osteoclast differentiation factor; TNF-related activation-induced cytokine; receptor activator of nuclear factor kappa B ligand; receptor activator of nuclear factor kappa-B ligand; sOdf; OPTB2; hRANKL2;
Gene ID	8600
mRNA Refseq	NM_003701
Protein Refseq	NP_003692
MIM	602642
UniProt ID	O14788
Chromosome Location	13q14
Pathway	Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; IL6-mediated signaling events, organism-specific biosystem; Osteoblast Signaling, organism-specific biosystem; Osteoclast Signaling, organism-specific biosystem; Osteoclast differentiation,

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	organism-specific biosystem; Osteoclast differentiation, conserved biosystem;
Function	cytokine activity; cytokine activity; receptor activity; tumor necrosis factor receptor binding; tumor necrosis factor receptor superfamily binding;

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA