

Soluble RANK ligand Active Protein | RANK active protein

Mouse Soluble RANK ligand Recombinant

CATALOG #	HOST
AAA76384	E coli (Note: Host protein expression may be lot-specific and can be subject to change during production, including bulk orders.)

PRODUCT SYNONYMS

Soluble RANK ligand; Mouse Soluble RANK ligand Recombinant; RANK active protein

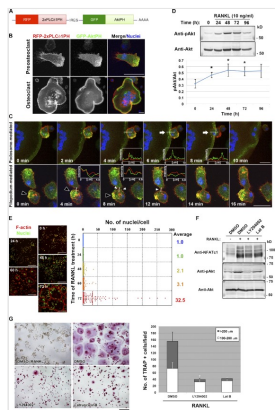
PRODUCT SPECIFICATIONS

Host	E coli (Note: Host protein expression may be lot-specific and can be subject to change during production, including bulk orders.)
Purity/Purification	>95%, as determined by SDS-PAGE and HPLC
Form/Format	Recombinant mouse RANK Ligand was lyophilized from a 0.2 um filtered PBS solution.
Sequence	MRRASRDYGK YLRSSSEEMGS GPGVPHEGPL HPAPSAPAPA PPPAASRSMF LALLGLGLGQ VVCSIALFLY FRAQMDPNRI SEDSTHCFYR ILRLHENAGL QDSTLESED TLPDSCRRMKQ AFQGAVQKEL QHIVGPQRFS GAPAMMEGSW LDVAQRGKPE AQPFAHLTIN AASIPSGSHK VTLSSWYHDR GWAKISNMTL SNGKLRVNQD GFYYLYANIC FRHHETSGSV PTDYLQLMVY VVKTSIKIPS SHNLMKGGST KNWSGNSEFH FYSINVGGFF KLRAGEEISI QVSNPSLLDP DQDATYFGAF KVQDID
Source	Optimized DNA sequence encoding MouseRANK LigandTNF binding domainwas expressed in Escherichia Coli.
Endotoxin	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/ug (1EU/ug).
Biological Activity	The ED(50) determined by the dose-dependent stimulation of IL-8 production in Human PBMCs is <=8 ng/ml.
Method	Osteoblast, osteoclast and macrophage differentiation.Bone marrow derived monocytes were seeded in 24-well culture plates and induced to differentiate into macrophages or osteoclasts via the addition of M-CSF or M-CSF + RANKL respectively. Osteoclastogenesis assaysOsteoclastogenesis assays were performed as in 5 cells were plated in each well of a 24-well dish with 60 ng/mL RANKL for 3 days. After 3 days, 2×10³ MDA-231, shControl, or shEGFR-MDA-231 cells were plated with the bone marrow cells, with 60 ng/mL RANKL and 10 ng/mL MCSF and grown for 3 days before TRAP staining. For TRAP staining, cells were washed with 1×PBS, fixed with ice cold methanol for 10 minutes, and stained in fresh TRAP solution for 15 minutes at 37 degree C. TRAP solution was replaced with 1×PBS for cell counting under the microscope. Osteoclastogenesis assays Osteoclastogenesis assays were performed as in 5 cells were plated in each well of a 24-well dish with 60 ng/mL RANKL for 3 days. After 3 days, 2×10³ MDA-231, shControl, or shEGFR-MDA-231 cells were plated with the bone marrow cells, with 60 ng/mL RANKL and 10 ng/mL MCSF and grown for 3 days before TRAP staining. For TRAP staining, cells were washed with 1×PBS, fixed with ice cold methanol for 10 minutes, and stained in fresh TRAP solution for 15 minutes at 37 degree C. TRAP solution was replaced with 1×PBS for cell counting under the microscope. Osteoclast differentiation assay Osteoclast differentiation assay was performed as we described.+ T cells or Treg cells (1 × 10⁶/ml) were pre-activated with 2.5 ug/ml anti-CD3 and 1.25 ug/ml anti-CD28 monoclonal mouse antibodies for 12 h as we described.
Molecular Function	Cytokine, Developmental-protein, Receptor
Biological Process	Differentiation
Reconstitution	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.

Preparation and Storage

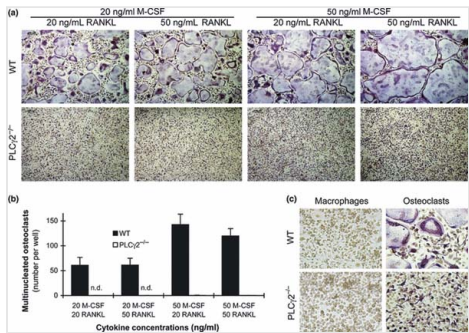
The lyophilized protein is stable for at least years from date of receipt at-20 degree C. Upon reconstitution, this cytokine can be stored in working aliquots at 2 degree -8 degree C for one month, or at-20 degree C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

IMAGES



Application Data

Expression of pro-resorptive cytokines in gouty tophus tissues.(c) Immunofluorescent stains for CD3 (green) and RANKL (red) in tophaceous gout tissues.



Application Data

PLC2 is required for in vitro osteoclast development.(a) Representative TRAP-stained images of wild-type and PLC2-/- bone marrow cells cultured in the presence of the indicated concentrations of recombinant murine M-CSF and RANKL for 4 days.

ADDITIONAL INFORMATION

Product Categories/Family for RANK active protein

Cytokines; TNF family

NCBI AND UNIPROT INFORMATION

NCBI GI #	114842415
NCBI GeneID	21943
NCBI Accession #	NP_035743.2
NCBI GenBank Nucleotide #	NM_011613.3
UniProt Accession #	O35235; O08712 TR11B_MOUSE; O35235 TNF11_MOUSE; O35305; P46414
Molecular Weight	35,003 Da
NCBI Official Full Name	tumor necrosis factor ligand superfamily member 11
NCBI Official Synonym Full Names	tumor necrosis factor (ligand) superfamily, member 11

NCBI Official Symbol	Tnfsf11
NCBI Official Synonym Symbols	ODF; OPG; OPGL; RANKL; Ly109l; Trance
NCBI Protein Information	tumor necrosis factor ligand superfamily member 11; OPG ligand; osteoprotegerin ligand; osteoclast differentiation factor; receptor activator of NF-kappaB ligand; TNF-related activation-induced cytokine; receptor activator of nuclear factor kappa B ligand
UniProt Protein Name	Tumor necrosis factor ligand superfamily member 11
UniProt Gene Name	Tnfsf11
UniProt Synonym Gene Names	Opgl; Rankl; Trance; ODF; OPGL; RANKL; TRANCE
UniProt Entry Name	TNF11_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/soluble-rank-ligand/76384>