

## Soluble RANK ligand Active Protein | RANK active protein

Human Soluble RANK ligand Recombinant

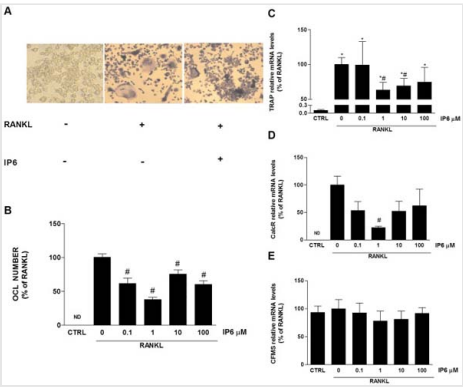
|                 |                                                                                                                                          |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------|
| CATALOG #       | HOST                                                                                                                                     |
| <b>AAA76383</b> | <b>E coli (Note: Host protein expression may be lot-specific and can be subject to change during production, including bulk orders.)</b> |

### PRODUCT SYNONYMS

Soluble RANK ligand; Human Soluble RANK ligand Recombinant; RANK active protein

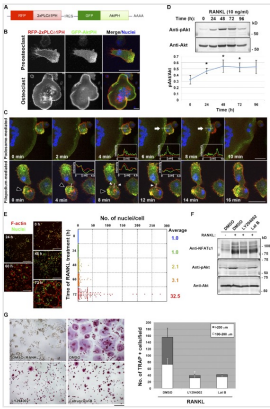
### PRODUCT SPECIFICATIONS

|                                |                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Host</b>                    | E coli (Note: Host protein expression may be lot-specific and can be subject to change during production, including bulk orders.)                                                                                                                                                                                                                                    |
| <b>Purity/Purification</b>     | >98%, as determined by SDS-PAGE and HPLC                                                                                                                                                                                                                                                                                                                             |
| <b>Form/Format</b>             | Recombinant RANKL was lyophilized from a.2 um filtered PBS solution pH7.5.                                                                                                                                                                                                                                                                                           |
| <b>Sequence</b>                | MRRASRDYTK YLRGSEEMGG GPGAPHEGPL HAPPPAPHQ PPAASRSMFV ALLGLGLGQV VCSVALFFYF<br>RAQMDPNRIS EDGTHCIYRI LRLHENADFQ DTTLESQDTK LIPDSCRRIK QAFQGAVQKE LQHIVGSQHI<br>RAEKAMVDGS WDLAKRSKL EAQPFALTI NATDIPSGSH KVSLSWYHD RGWAKISNMT FSNGKLIVNQ<br>DGFYYLYANI CFRHHETSGD LATEYLQLMV YVTKTSIKIP SSHTLMKGGS TKYWSGNSEF HFYSINVGGF<br>FKLRSGEEIS IEVSNPSLLD PDQDATYFGA FKVRDID |
| <b>Source</b>                  | Optimized DNA sequence encoding Human RANK Ligand mature chain was expressed in Escherichia Coli.                                                                                                                                                                                                                                                                    |
| <b>Endotoxin</b>               | Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than.1 ng/ug (1EU/ug).                                                                                                                                                                                                                                               |
| <b>Biological Activity</b>     | The ED(50) determined by the dose-dependent stimulation of IL-8 production in Human PBMCs is <=8 ng/ml.                                                                                                                                                                                                                                                              |
| <b>Reconstitution</b>          | A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than.1 mg/mL. This solution can then be diluted into other buffers.                                                                                                                                                                                               |
| <b>Preparation and Storage</b> | 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 degree - 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.                                  |



Application Data

Polarized membrane extensions mediate osteoclast fusion.(D, top) Immunoblot analysis of lysates of RAW264.7 macrophages stimulated with RANKL for the indicated times with antibodies to Ser473-phosphorylated (p) or total forms of Akt.



Application Data

In vitro differentiation of human osteoclasts and confocal microscope analysisHuman osteoclasts were generated by culture of peripheral blood monocytes with M-CSF and RANKL using a standard protocol.Peripheral blood mononuclear cells (PBMCs) were isolated from heparinized blood samples by Ficoll density gradient centrifugation.PBMCs were cultured either on glass coverslips for differentiation analysis or on dentine discs for resorption assays in alpha MEM , 10% FCS , 1% Ultraglutamine , 1% Pen/Strep, 25 ng/mL human M-CSF , and 30 ng/mlrankl (ocky , , ).Cells were cultured for 2 weeks with medium changes twice weekly.Cells on coverslips were fixed in 4% paraformaldehyde (PFA) in 1× phosphate-buffered saline (PBS) and then stained with Phalloidin-Alexa 488 , DAPI , and tartrate-resistant acid phosphatase (TRAP) activity using Naphtol-AS-MX-Phosphate and Fast-Red-Violet LB .TRAP-positive cells with ≥3 nuclei and actin rings were counted as osteoclasts.Dentine discs were cleaned with 1% SDS and resorption pits were visualized by black...

ADDITIONAL INFORMATION

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|---------------------------------------------------|-----------------------|
| Product Categories/Family for RANK active protein | Cytokines; TNF family |
|---------------------------------------------------|-----------------------|

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                                                                                                                                                                 |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 4507595                                                                                                                                                                                                                                                         |
| NCBI GeneID                      | 8600                                                                                                                                                                                                                                                            |
| NCBI Accession #                 | NP_003692.1                                                                                                                                                                                                                                                     |
| NCBI GenBank Nucleotide #        | NM_003701.3                                                                                                                                                                                                                                                     |
| UniProt Accession #              | O14788; O14723; Q96Q17; Q9P2Q3                                                                                                                                                                                                                                  |
| Molecular Weight                 | 35,478 Da                                                                                                                                                                                                                                                       |
| NCBI Official Full Name          | tumor necrosis factor ligand superfamily member 11 isoform 1                                                                                                                                                                                                    |
| NCBI Official Synonym Full Names | tumor necrosis factor (ligand) superfamily, member 11                                                                                                                                                                                                           |
| NCBI Official Symbol             | TNFSF11                                                                                                                                                                                                                                                         |
| NCBI Official Synonym Symbols    | ODF; OPGL; sOdF; CD254; OPTB2; RANKL; TRANCE; hRANKL2                                                                                                                                                                                                           |
| NCBI Protein Information         | tumor necrosis factor ligand superfamily member 11; 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 ligan |
| 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                                                                                                                                                                                                                   |

**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.

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Online datasheet: <https://www.aaabiotech.com/e-coli-active-protein/soluble-rank-ligand/76383>