

## Product datasheet for **RG218782**

### **RANKL (TNFSF11) (NM\_003701) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RANKL (TNFSF11) (NM_003701) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RANKL
Synonyms:	CD254; hRANKL2; ODF; OPGL; OPTB2; RANKL; sOdf; TNLG6B; TRANCE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG218782 representing NM_003701 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGCCGCGCCAGCAGAGACTACACCAAGTACCTGCGTGGCTCGGAGGAGATGGGCGCGGCCCGGAG  
CCCCGCACGAGGGCCCCCTGCACGCCCCGCGCCGCTGCGCCGCACCAGCCCCCGCGCCCTCCCGCTC  
CATGTTTCGTGGCCCTCTGGGGCTGGGGCTGGGCCAGGTTGTCTGCAGCGTCGCCCTGTTCTTCTATTT  
AGAGCGCAGATGGATCCTAATAGAATATCAGAAGATGGCACTCACTGCATTTATAGAATTTTGAGACTCC  
ATGAAAATGCAGATTTTCAAGACACAACCTGGAGAGTCAAGATACAAAATTAATACCTGATTCATGTAG  
GAGAAATTAACAGGCCTTTCAAGGAGCTGTGAAAAGGAATTACAACATATCGTTGGATCACAGCACATC  
AGAGCAGAGAAAAGCGATGGTGGATGGCTCATGGTTAGATCTGGCCAAGAGGAGCAAGCTTGAAGCTCAGC  
CTTTTGCTCATCTCACTATTAATGCCACCAGACATCCCCTCTGGTTCCCATAAAGTGAGTCTGTCCCTCTTG  
GTACCATGATCGGGGTTGGGCCAAGATCTCAACATGACTTTTAGCAATGGAAAATAATAGTAAATCAG  
GATGGCTTTTATTACCTGTATGCCAACATTTGCTTTCGACATCATGAACTTCAGGAGACCTAGCTACAG  
AGTATCTTCAACTAATGGTGTACGTCACTAAAACCAGCATCAAAATCCCAAGTTCTCATACCCTGATGAA  
AGGAGGAAGCACCAAGTATTGGTCAGGGAATTCGAATCCATTTTATCCATAAACGTTGGTGGATTT  
TTAAGTTACGGTCTGGAGAGAAATCAGCATCGAGGTCTCAACCCCTCTTACTGGATCCGGATCAGG  
ATGCAACATACTTTGGGGCTTTTAAAGTTCGAGATATAGAT

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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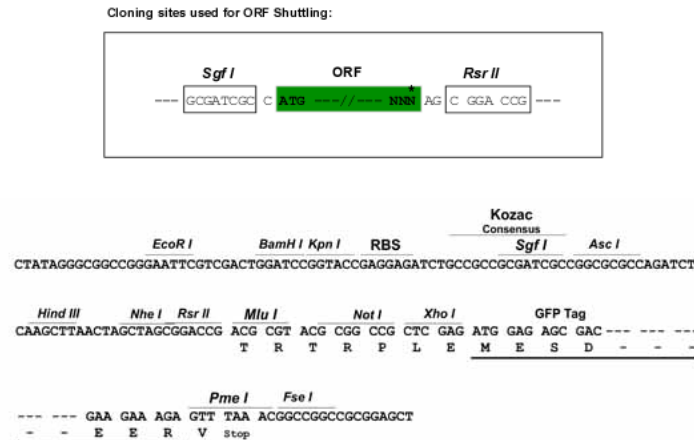
**Protein Sequence:** >RG218782 representing NM\_003701  
 Red=Cloning site Green=Tags(s)

MRRASRDYTKYLRGSEEMGGGPGAPHEGPLHAPPPAPHQPPAASRSMFVALLGLGLGQVVCSVALFFYF  
 RAQMDPNRI SEDGTHCIYRILRLHENADFQDTTLESQDTKLIPDSCRRIKQAFQGAVQKELQHIVGSQHI  
 RAEKAMVDGSWLDLAKRSKLEAQPFAHLTINATDIPSGSHKVLSWYHDRGWAKISNMTF SNGKLI VNQ  
 DGFYYLYANICFRHHETSGLD LATEYLQLMVYVTKTSIKIPSSHTLMKGGSTKYWSGNSEFFHYSINVGGF  
 FKLRSGEIISIEVSNPSLLDPDQDATYFGAFKVRDID

SGP TRRRLE - GFP Tag - V

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**



**ACCN:** NM\_003701

**ORF Size:** 951 bp

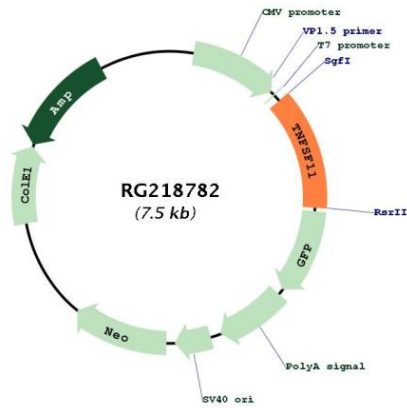
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<u>NM_003701.2, NP_003692.1</u>
<b>RefSeq Size:</b>	2226 bp
<b>RefSeq ORF:</b>	954 bp
<b>Locus ID:</b>	8600
<b>UniProt ID:</b>	<u>O14788</u>
<b>Cytogenetics:</b>	13q14.11
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Cytokine-cytokine receptor interaction
<b>Gene Summary:</b>	<p>This gene encodes a member of the tumor necrosis factor (TNF) cytokine family which is a ligand for osteoprotegerin and functions as a key factor for osteoclast differentiation and activation. This protein was shown to be a dendritic cell survival factor and is involved in the regulation of T cell-dependent immune response. T cell activation was reported to induce expression of this gene and lead to an increase of osteoclastogenesis and bone loss. This protein was shown to activate antiapoptotic kinase AKT/PKB through a signaling complex involving SRC kinase and tumor necrosis factor receptor-associated factor (TRAF) 6, which indicated this protein may have a role in the regulation of cell apoptosis. Targeted disruption of the related gene in mice led to severe osteopetrosis and a lack of osteoclasts. The deficient mice exhibited defects in early differentiation of T and B lymphocytes, and failed to form lobulo-alveolar mammary structures during pregnancy. Two alternatively spliced transcript variants have been found. [provided by RefSeq, Jul 2008]</p>

Product images:



Circular map for RG218782