

## Product datasheet for **TP723867**

### **RANKL (TNFSF11) (NM\_003701) Human Recombinant Protein**

#### **Product data:**

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Purified recombinant protein of Human tumor necrosis factor (ligand) superfamily, member 11 (TNFSF11 / RANKL), transcript variant 1
<b>Species:</b>	Human
<b>Expression Host:</b>	HEK293
<b>Expression cDNA Clone or AA Sequence:</b>	Human TRANCE, the region of Gly136-Asp317, from gene Accession# NM_003701
<b>Tag:</b>	N-His
<b>Predicted MW:</b>	22.7 kDa
<b>Concentration:</b>	lot specific
<b>Purity:</b>	>95%, as determined by Coomassie stained SDS-PAGE.
<b>Buffer:</b>	1 x PBS, pH 6.5
<b>Bioactivity:</b>	Bioactivity was measured by its property to induce osteoclast differentiation in RAW264.7 cells in the presence of 2.5 µg/ml of anti-His tag antibody (Cat. No. 652501).
<b>Endotoxin:</b>	Less than 0.01 ng per µg protein as determined by the LAL method
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Unopened vial can be stored between 2°C and 8°C for up to 2 weeks, at -20°C for up to 6 months, or at -70°C or below until the expiration date. Aliquots can be stored between 2°C and 8°C for up to one week and stored at -20°C or colder for up to 3 months. Avoid repeated freeze/thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_003692</a>
<b>Locus ID:</b>	8600
<b>UniProt ID:</b>	<a href="#">O14788</a>
<b>RefSeq Size:</b>	2226
<b>Cytogenetics:</b>	13q14.11
<b>RefSeq ORF:</b>	951
<b>Synonyms:</b>	CD254; hRANKL2; ODF; OPGL; OPTB2; RANKL; sOdf; TNLG6B; TRANCE



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**Summary:**

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]

**Protein Families:**

Druggable Genome, Transmembrane

**Protein Pathways:**

Cytokine-cytokine receptor interaction

**Product images:**