

Product datasheet for **TP723421**

RANKL (TNFSF11) (NM_003701) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Human tumor necrosis factor (ligand) superfamily, member 11 (TNFSF11), transcript variant 1.
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MEKAMVDGSW LDLAKRSKLE AQPFAHLTIN ATDIPSGSHK VSLSSWYHDR GWAKISNMTF SNGKLIVNQD GFYYLYANIC FRHHETSGDL ATEYLQLMVY VTKTSIKIPS SHTLMKGGST KYWSGNSEFH FYSINVGGFF KLRSGEIISI EVSNPSELLDP DQDATYFGAF KVRDID
Tag:	Tag Free
Predicted MW:	20 kDa
Concentration:	lot specific
Purity:	>95% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	Lyophilized from a 0.2 μM filtered solution of 20mM phosphate buffer, 100mM NaCl, pH 7.2
Bioactivity:	Determined by its ability to induce NFκB in RAW264.7 cells in the absence of any cross-linking. The expected ED50 for this effect is 10.0-25.0 ng/ml.
Endotoxin:	Endotoxin level is < 0.1 ng/μg of protein (< 1 EU/μg)
Storage:	Store at -80°C.
Stability:	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
RefSeq:	NP_143026
Locus ID:	8600
UniProt ID:	O14788
RefSeq Size:	2226
Cytogenetics:	13q14.11
RefSeq ORF:	951
Synonyms:	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