

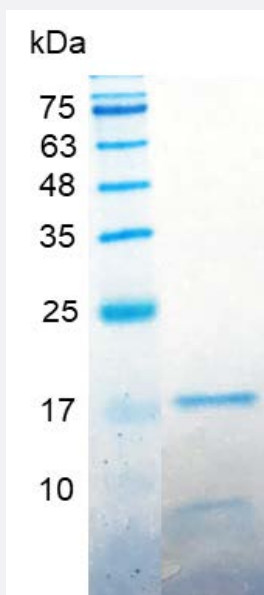
Bioactive

TNFSF11 (Human) Recombinant Protein

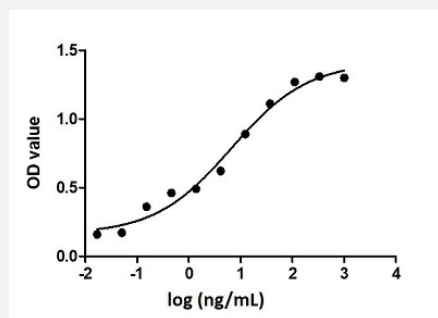
Catalog # P7810

Size 20 ug

Applications



SDS-PAGE analysis of TNFSF11 (Human) Recombinant Protein.



Result of activity analysis

Result of activity analysis

Specification

Product Description

Human TNFSF11 recombinant protein with polyhistidine tag at the C-terminus expressed in *Escherichia coli*.

Sequence

MEKAMVDGSWLDLAKRSKLEAQPFAHLTINATDIPSGSHKVSLSWYHDRGWAKISNMTFSNGK
LVNQDGFYYLYANICFRHHETSGDLATEYLQLMVYVTKTSIKIPSSHTLMKGGSTKYWSGNSEFHFY
SINVGFFFKLRSGEEISIEVSNPSSLDPDQDATYFGAFKVRDID with polyhistidine tag at the C-terminus.

Host	Escherichia coli
Form	Lyophilized
Preparation Method	<i>Escherichia coli</i> expression system
Purity	> 98% as determined by SDS-PAGE.
Endotoxin Level	< 0.1 EU/ ug of protein by the LAL method.
Activity	ED ₅₀ < 10 ng/mL, Measured by the induction of osteoclast differentiation in RAW264.7 cells.
Quality Control Testing	SDS-PAGE Stained with Coomassie Blue. SDS-PAGE analysis of TNFSF11 (Human) Recombinant Protein.
Recommend Usage	Biological Activity SDS-PAGE The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from a solution containing 1X PBS, pH 8.0. Reconstitute the lyophilized powder in ddH ₂ O to 100 ug/mL.
Storage Instruction	Lyophilized protein should be stored at -20°C. Protein aliquots should be stored at -20°C to -80°C. The product is stable for one year. Avoid repeated freeze/thaw cycles.
Note	Result of activity analysis Result of activity analysis

Applications

- Functional Study
- SDS-PAGE

Gene Info — TNFSF11

Entrez GeneID	8600
Gene Name	TNFSF11
Gene Alias	CD254, ODF, OPGL, OPTB2, RANKL, TRANCE, hRANKL2, sOdf
Gene Description	tumor necrosis factor (ligand) superfamily, member 11

Omim ID [259710 602642](#)

Gene Ontology [Hyperlink](#)

Gene 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 dentritic 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]

Other Designations

OTTHUMP00000178585|TNF-related activation-induced cytokine|osteoclast differentiation factor|osteoprotegerin ligand|receptor activator of nuclear factor kappa B ligand|tumor necrosis factor ligand superfamily, member 11

Pathway

- [Cytokine-cytokine receptor interaction](#)

Disease

- [Acute Disease](#)
- [Alveolar Bone Loss](#)
- [Alzheimer disease](#)
- [Arthritis](#)
- [Bone Diseases](#)
- [Bone Resorption](#)
- [Calcinosis](#)
- [Cardiovascular Diseases](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Disease Progression](#)

- [Edema](#)
- [Fractures](#)
- [Genetic Predisposition to Disease](#)
- [Lupus Erythematosus](#)
- [Metabolic Syndrome X](#)
- [Neoplasms](#)
- [Obesity](#)
- [Osteoporosis](#)
- [Periodontitis](#)
- [Prosthesis Failure](#)
- [Scoliosis](#)
- [Spinal Fractures](#)
- [Tobacco Use Disorder](#)