

Recombinant Active Mouse TNFSF11 Protein, His-tagged(C-ter)

Cat. No. Tnfsf11-317M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Active Mouse TNFSF11 Protein with His tag (C-ter) was expressed in E. coli.
Species	Mouse
Source	E.coli
Description	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]
Form	Powder

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Bio-activity	Determined by its ability to induce osteoclast differentiation in RAW264.7 cells. The ED50 for this effect is <2 ng/mL.
AA Sequence	MPAMMEGSWLDVAQRGKPEAQPF AHLTINAASIPSGSHKVTLSWYHDRGWAKIS NMTLSNGKLRVNQDGFYYLYANICFRHHETSGSVPTDYLQLMVYVVKTSIKIPSSHN LMKGGSTKNWSGNSEFHFYSINVGGFFKL RAGEEISIQVSNPSLLDPDQDATYFGAF KVQDID
Endotoxin	Endotoxin level is less than 0.1 EU/μg of the protein, as determined by the LAL test.
Purity	> 95% (by SDS-PAGE)
Applications	SDS-PAGE
Notes	For laboratory research only, not for drug, diagnostic or other use.
Storage	Lyophilized protein should be stored at -20°C. After reconstitution, aliquot and store at -20°C or -80°C for up to one month. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening.
Storage Buffer	PBS (pH 8.0)
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile water to a concentration not less than 100 μg/mL and incubate the stock solution for at least 20 min at room temperature to make sure the protein is dissolved completely.

GENE INFORMATION

Gene Name	Tnfsf11 tumor necrosis factor (ligand) superfamily, member 11 [<i>Mus musculus</i>]
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Official Symbol	Tnfsf11
Synonyms	TNFSF11; tumor necrosis factor (ligand) superfamily, member 11; tumor necrosis factor ligand superfamily member 11; OPG ligand; osteoprotegerin ligand; osteoclast differentiation factor; receptor activator of NF-kappaB ligand; TNF-related activation-induced cytokine; receptor activator of nuclear factor kappa B ligand; receptor activator of nuclear factor kappa-B ligand; tumor necrosis factor-related activation-induced cytokine; ODF; OPG; OPGL; RANKL; Ly109l; Trance;
Gene ID	21943
mRNA Refseq	NM_011613
Protein Refseq	NP_035743
SDS-PAGE	