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

Cat. No. TNFSF11-316H **Lot. No.** (See product label)

SPECIFICATION

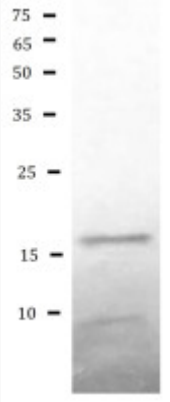
Product Overview	Recombinant Active Human TNFSF11 Protein with His tag (C-ter) was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	143-317 a.a.
Description	This gene encodes a member of the tumor necrosis factor (TNF) cytokine family which is a ligand for osteoprotegerin and functions as a key factor for osteoclast differentiation and activation. This protein was shown to be a 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, Jul 2008]

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Form	Powder
Bio-activity	Determined by its ability to induce osteoclast differentiation in RAW264.7 cells. The ED50 for this effect is <10 ng/mL.
AA Sequence	MEKAMVDGSWLDLAKRSKLEAQPFAHLTINATDIPSGSHKVSLSSWYHDRGWAKIS NMTFSNGKLIVNQDGFYYLYANICFRHHETSGDLATEYLQLMVYVTKTSIKIPSSHTL MKGGSTKYWSGNSEFHFYSINVGGFFKLRSGEEISIEVSNPSLLDPDQDATYFGAFK VRDID
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

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Gene Name	TNFSF11 tumor necrosis factor (ligand) superfamily, member 11 [Homo sapiens]
Official Symbol	TNFSF11
Synonyms	TNFSF11; tumor necrosis factor (ligand) superfamily, member 11; tumor necrosis factor ligand superfamily member 11; CD254; ODF; OPGL; RANKL; TRANCE; osteoprotegerin ligand; osteoclast differentiation factor; TNF-related activation-induced cytokine; receptor activator of nuclear factor kappa B ligand; receptor activator of nuclear factor kappa-B ligand; sOdf; OPTB2; hRANKL2;
Gene ID	8600
mRNA Refseq	NM_003701
Protein Refseq	NP_003692
MIM	602642
UniProt ID	O14788
SDS-PAGE	

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