Active Recombinant Human TNFSF11 Protein, His-tagged

Cat. No. TNFSF11-873H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TNFSF11(Gly136-Asp317), transcript variant 1, fused with His tag at N-terminal was expressed in HEK293 cells.
Species	Human
Source	HEK293
ProteinLength	136-317 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.
Form	1 x PBS, pH6.5

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Bio-activity	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).
Molecular Mass	22.7 kDa
Purity	>95%, as determined by Coomassie stained SDS-PAGE.
Concentration	Protein formulated and vialed at >50 ug/mL in specified buffer

GENE INFORMATION

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

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