

Recombinant Human TNFSF11 protein, Fc-tagged

Cat. No. TNFSF11-395H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human TNFSF11 protein (Gly64-Asp245), fused to human IgG1 Fc tag at N-terminus, was expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	182
Description	<p>Receptor activator of nuclear factor kappa-B ligand (RANKL), also known as tumor necrosis factor ligand superfamily member 11 (TNFSF11), TNF-related activation-induced cytokine (TRANCE), osteoprotegerin ligand (OPGL), and osteoclast differentiation factor (ODF), is known as a type II membrane protein and is a member of the tumor necrosis factor (TNF) superfamily. RANKL, through its ability to stimulate osteoclast formation and activity, is a critical mediator of bone resorption and overall bone density. Some findings also suggest some cancer cells, particularly prostate cancer cells, can activate an increase in bone remodeling and ultimately increase overall bone production.[17] This increase in bone remodeling and bone production increases the overall growth of bone metastasizes. The overall control of bone remodeling is regulated by the binding of RANKL with its receptor or its decoy receptor, respectively, RANK and OPG.</p>
Form	Lyophilized from 0.22 um filtered solution in PBS, pH7.4, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 46.9 kDa. The protein migrates as 60 kDa under

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	reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU per ug by the LAL method.
Purity	>90% as determined by SDS-PAGE.
Storage	<p>For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.</p> <p>Please avoid repeated freeze-thaw cycles.</p> <p>This product is stable after storage at:</p> <p>-20 centigrade to -70 centigrade for 12 months in lyophilized state;</p> <p>-70 centigrade for 3 months under sterile conditions after reconstitution.</p>
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name	TNFSF11
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

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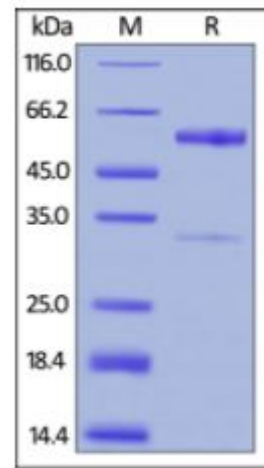
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Protein Refseq NP_003692

MIM 602642

UniProt ID O14788

**SDS-PAGE of
TNFSF11-395H**



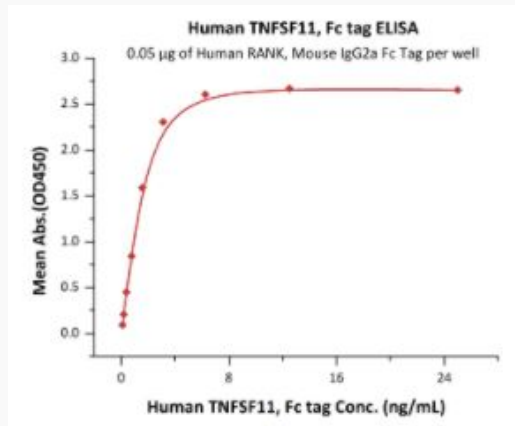
Human TNFSF11, Fc tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

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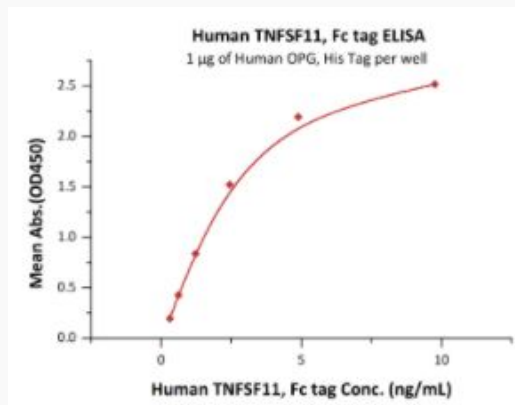
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**Bioactivity-ELISA of
TNFSF11-395H**



Immobilized Human RANK, Mouse IgG2a Fc Tag, low endotoxin at 0.5 µg/mL (100 µL/well) can bind Human TNFSF11, Fc tag with a linear range of 0.1-3 ng/mL (QC tested).

**Bioactivity-ELISA of
TNFSF11-395H**



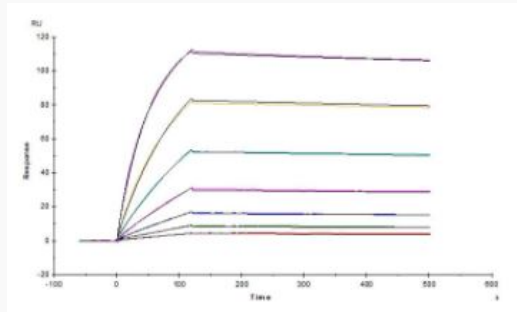
Immobilized Human OPG, His Tag at 10 µg/mL (100 µL/well) can bind Human TNFSF11, Fc tag with a linear range of 0.3-2 ng/mL (Routinely tested).

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Bioactivity-SPR of TNFSF11-395H



Captured Human RANK, Mouse IgG2a Fc Tag, low endotoxin on CM5 chip via Anti-Mouse antibodies surface can bind Human TNFSF11, Fc tag with an affinity constant of 0.574 nM as determined in a SPR assay (Routinely tested).

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