TNFSF11 Antibody

PRODUCT OVERVIEW

Product Name	TNFSF11, Antibody
Full Product Name	TNFSF11 Antibody
Product Gene Name	anti-TNFSF11 antibody
Molecular Weight	30,523 Da
OMIM	259710
3D Structure	ModBase 3D Structure for O14788
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for anti-TNFSF11 antibody	MBS8513724 is an antibody targeting TNFSF11. Also known as TNFSF11 Antibody.
Other Notes	Small volumes of anti-TNFSF11 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TNFSF11. It may not necessarily be applicable to this product.

NCBI GI #	4507595
NCBI GeneID	8600
NCBI Accession #	NP_003692.1
UniProt Primary Accession #	O14788
UniProt Secondary Accession #	O14723; Q96Q17; Q9P2Q3
UniProt Related Accession #	O14788
GenBank Nucleotide #	NM_003701.3
NCBI Official Full Name	tumor necrosis factor ligand superfamily member 11 isoform 1
NCBI Official Synonym Full Names	TNF superfamily member 11
NCBI Official Symbol	TNFSF11
NCBI Official Synonym Symbols	ODF; OPGL; sOdf; CD254; OPTB2; RANKL; TNLG6B; TRANCE; hRANKL2
UniProt Protein Name	Tumor necrosis factor ligand superfamily member 11
UniProt Synonym Protein Names	Osteoclast differentiation factor; ODF
Protein Family	Tumor necrosis factor ligand superfamily
UniProt Gene Name	TNFSF11
UniProt Synonym Gene Names	OPGL; RANKL; TRANCE; ODF; OPGL; RANKL; TRANCE
NCBI Protein Information	tumor necrosis factor ligand superfamily member 11

NCBI Summary for TNFSF11	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]
UniProt Comments for TNFSF11	Cytokine that binds to TNFRSF11B/OPG and to TNFRSF11A/RANK. Osteoclast differentiation and activation factor. Augments the ability of dendritic cells to stimulate naive T-cell proliferation. May be an important regulator of interactions between T-cells and dendritic cells and may play a role in the regulation of the T-cell-dependent immune response. May also play an important role in enhanced bone-resorption in humoral hypercalcemia of malignancy (PubMed:22664871). Induces osteoclastogenesis by activating multiple signaling pathways in osteoclast precursor cells, chief among which is induction of long lasting oscillations in the intracellular concentration of Ca (2+) resulting in the activation of NFATC1, which translocates to the nucleus and induces osteoclast-specific gene transcription to allow differentiation of osteoclasts. During osteoclast differentiation, in a TMEM64 and ATP2A2-dependent manner induces activation of CREB1 and mitochondrial ROS generation necessary for proper osteoclast generation ().
Research Articles on TNFSF11	**1.** Higher concentrations of serum sRANKL were positively associated with risk of estrogen receptor positive breast cancer.
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