Osteoprotegerin Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	Osteoprotegerin (TNFRSF11B), Blocking Peptide
Full Product Name	Osteoprotegerin Blocking Peptide
Product Gene Name	TNFRSF11B blocking peptide
Product Synonym Names	MGC29565; OCIF; OPG; Osteoclastogenesis inhibitory factor; Osteoprotegerin; PDB5; TNF receptor superfamily member 11b; TNFRSF 11B; TNFRSF11B; TR 1; TR1; TR11B_HUMAN; Tumor necrosis factor receptor superfamily member 11B
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	Osteoprotegerin peptide (MBS9626194) is used for blocking the activity of Osteoprotegerin antibody (MBS9607478)
Molecular Weight	46,026 Da
Chromosome Location	Chromosome: 8; NC_000008.10 (119935796..119964383, complement). Location: 8q24
OMIM	239000
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for TNFRSF11B blocking peptide	Blocking/Control
Related Product Information for TNFRSF11B blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of TNFRSF11B blocking peptide 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.
Searchable Terms for TNFRSF11B purchase	MBS9626194 is a blocking peptide targeting TNFRSF11B. Also known as Osteoprotegerin Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TNFRSF11B. It may not necessarily be applicable to this product.

NCBI GI #	148743793
NCBI GeneID	4982
NCBI Accession #	NP_002537.3

UniProt Primary Accession #	O00300
UniProt Secondary Accession #	O60236; Q53FX6; Q9UHP4; B2R9A8
UniProt Related Accession #	O00300
GenBank Nucleotide #	NM_002546.3
NCBI Official Full Name	tumor necrosis factor receptor superfamily member 11B
NCBI Official Synonym Full Names	tumor necrosis factor receptor superfamily, member 11b
NCBI Official Symbol	TNFRSF11B
NCBI Official Synonym Symbols	OPG; TR1; OCIF
UniProt Protein Name	Tumor necrosis factor receptor superfamily member 11B
UniProt Synonym Protein Names	Osteoclastogenesis inhibitory factor; Osteoprotegerin
Protein Family	Tumor necrosis factor receptor superfamily
UniProt Gene Name	TNFRSF11B
UniProt Synonym Gene Names	OCIF; OPG
UniProt Entry Name	TR11B_HUMAN
NCBI Protein Information	tumor necrosis factor receptor superfamily member 11B; osteoprotegerin; osteoclastogenesis inhibitory factor
NCBI Summary for TNFRSF11B	The protein encoded by this gene is a member of the TNF-receptor superfamily. This protein is an osteoblast-secreted decoy receptor that functions as a negative regulator of bone resorption. This protein specifically binds to its ligand, osteoprotegerin ligand, both of which are key extracellular regulators of osteoclast development. Studies of the mouse counterpart also suggest that this protein and its ligand play a role in lymph-node organogenesis and vascular calcification. Alternatively spliced transcript variants of this gene have been reported, but their full length nature has not been determined. [provided by RefSeq, Jul 2008]
UniProt Comments for TNFRSF11B	TNFRSF11B: Acts as decoy receptor for RANKL and thereby neutralizes its function in osteoclastogenesis. Inhibits the activation of osteoclasts and promotes osteoclast apoptosis in vitro. Bone homeostasis seems to depend on the local RANKL/OPG ratio. May also play a role in preventing arterial calcification. May act as decoy receptor for TRAIL and protect against apoptosis. TRAIL binding blocks the inhibition of osteoclastogenesis. Defects in TNFRSF11B are the cause of juvenile Paget disease (JPD); also known as hyperostosis corticalis deformans juvenilis or hereditary hyperphosphatasia or chronic congenital idiopathic hyperphosphatasia. JPD is a rare autosomal recessive osteopathy that presents in infancy or early childhood. The disorder is characterized by rapidly remodeling woven bone, osteopenia, debilitating fractures, and deformities due to a markedly accelerated rate of bone remodeling throughout the skeleton. Approximately 40 cases of JPD have been reported worldwide. Unless it is treated with drugs that block osteoclast- mediated skeletal resorption, the disease can be fatal. Protein type: Secreted; Inhibitor; Secreted, signal peptide Chromosomal Location of Human Ortholog: 8q24 Cellular Component: extracellular space; proteinaceous extracellular matrix; extracellular region Molecular Function: cytokine activity; receptor activity Biological Process: response to drug; response to magnesium ion; extracellular matrix organization and biogenesis; negative regulation of odontogenesis of dentine-containing teeth; response to estrogen stimulus; apoptosis; response to arsenic; signal transduction; negative regulation of bone resorption; skeletal development; response to nutrient Disease: Paget Disease, Juvenile
Research Articles on TNFRSF11B	**1.** genetic association study in population of 1,012 Han women in China: Data suggest that an SNP in TNFRSF11B (rs119955824) is associated with bone mineral density of lumbar spine and hip joint in aging women.

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