

Recombinant Human TNFRSF11B protein

Cat. No. TNFRSF11B-5526H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TNFRSF11B protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	173
Description	Osteoprotegerin (OPG), also named osteoclastogenesis inhibitory factor (OCIF), and tumor necrosis factor receptor superfamily member 11B (TNFRSF11B), is a TNFRSF 11B-encoded protein in humans. OPG is a 401 a.a. basic glycoprotein which comprises 7 structural domains. It is either a 60 kDa monomer or a 120 kDa dimer linked by disulfide bridges. OPG acts as a decoy receptor for the receptor activator of nuclear factor kappa B ligand (RANKL) and inhibits the activation of osteoclasts and promotes osteoclast apoptosis in vitro and may also play a role in preventing arterial calcification. OPG has been applied to decrease bone resorption in women with postmenopausal osteoporosis and in patients with lytic bone metastases. Mature human OPG shares 86 %, 87 %, 92 %, 92 % and 88 % amino acid sequence identity with mouse, rat, equine, canine and bovine OPG, respectively.
Form	Lyophilized from a 0.2µm filtered concentrated solution in 20 mM PB, 150 mM NaCl, pH 6.0.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by neutralizing the stimulation of U937 cells is less than 10 ng/ml, corresponding to a

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	specific activity of $> 1.0 \times 10^5$ IU/mg in the presence of 10 ng/mL soluble rHuRANKL (sRANKL).
Molecular Mass	Approximately 19.7 kDa, a single non-glycosylated polypeptide chain containing 173 amino acids.
AA Sequence	ETFPKYLHYDEETSHQLLCDKCPPGTYLKQHCTAKWKTVCAPCPDHYTDSWHT SDECLYCSPVCKELQYVKQECNRTHNRVCECKEGRYLEIEFCLKHRSCPPGFGVVQ AGTPERNTVCKRCPDGFFSNETSSKAPCRKHTNCSVFGLLLTQKGNATHDNICSGN SESTQK
Endotoxin	Less than 1 EU/μg of rHuOPG as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	TNFRSF11B
Official Symbol	TNFRSF11B

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Synonyms	TNFRSF11B; tumor necrosis factor receptor superfamily, member 11b; OPG, osteoprotegerin; tumor necrosis factor receptor superfamily member 11B; OCIF; TR1; osteoprotegerin; osteoclastogenesis inhibitory factor; OPG; MGC29565;
Gene ID	4982
mRNA Refseq	NM_002546
Protein Refseq	NP_002537
MIM	602643
UniProt ID	O00300
SDS-PAGE of TNFRSF11B-5526H	