

Recombinant Human TNFRSF11B Protein (Met1-Leu401), HIgG1 Fc-tagged

Cat. No. TNFRSF11B-365H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TNFRSF11B Protein (NP_002537.3) (Met1-Leu401) was produced by Baculovirus-Insect Cells expression system. This protein was expressed with the Fc region of human IgG1 at the C-terminus.
Species	Human
Source	Insect Cells
ProteinLength	Met1-Leu401
Description	Osteoprotegerin or TNFRSF11B 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. Osteoprotegerin/TNFRSF11B acts as decoy receptor for RANKL and thereby neutralizes its function in osteoclastogenesis. This protein may inhibit the activation of osteoclasts and promotes osteoclast apoptosis in vitro. Bone homeostasis seems to depend on the local RANKL/OPG ratio. Osteoprotegerin/TNFRSF11B also play a role in preventing arterial calcification, act as decoy receptor for TRAIL and protect against apoptosis. TRAIL binding blocks the

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	inhibition of osteoclastogenesis.
Predicted N Terminal	Glu 22
Form	Lyophilized from sterile pH 7.0, 100 mM Glycine, 10 mM NaCl. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant human TNFRSF11B consists of 618 amino acids and predicts a molecular mass of 70.3 kDa.
Endotoxin	< 1.0 EU per µg protein as determined by the LAL method.
Purity	> 95 % as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

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Gene Name	TNFRSF11B tumor necrosis factor receptor superfamily, member 11b [Homo sapiens]
Official Symbol	TNFRSF11B
Synonyms	TNFRSF11B; OPG, osteoprotegerin; OCIF; TR1; osteoprotegerin; OPG; MGC29565;
Gene ID	4982
mRNA Refseq	NM_002546
Protein Refseq	NP_002537
MIM	602643
UniProt ID	O00300

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