Recombinant Mouse OPG Protein(Fc Tag)

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Catalog Number: PDMM100060



Description **Species** Mouse Source Mammalian-derived Mouse Tnfrsf11b proteins Glu22-Leu401, with an C-terminal Fc Mol Mass 66.7 kDa 008712 Accession **Bio-activity** Not validated for activity **Properties** Purity >90% as determined by reducing SDS-PAGE. Endotoxin < 1.0 EU/mg of the protein as determined by the LAL method Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 Storage °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at $< -20^{\circ}$ C for 3 months. This product is provided as lyophilized powder which is shipped with ice packs. Shipping Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Formulation Mannitol. Reconstitution It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data

	М	R
kDa		
80	- 1	_
60	-	
40	-	
30	-	
20	-	
12	2	

SDS-PAGE analysis of Mouse Tnfrsf11b proteins, 2 µg/lane of Recombinant Mouse Tnfrsf11b proteins was resolved with an SDS-PAGE under reducing conditions, showing bands at 66.7KD

Background

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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 inhibition of osteoclastogenesis.

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