TNFRSF11B
Recombinant Human Osteoprotegerin

Catalog No.	CRO200A	**Quantity:**	10 µg
	CRO200B		50 µg
	CRO200C		1 mg

Alternate Names: Tumor necrosis factor receptor superfamily member 11b, Osteoclastogenesis inhibitory factor, OPG

Description: Osteoprotegerin (OPG), also named osteoclastogenesis inhibitory factor (OCIF), and tumor necrosis factor receptor superfamily member 11B (TNFRSF11B), is a TNFRSF11B-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.

UniProt ID: O00300

Gene ID: 4982

Source: *E.coli*

Molecular Weight: 19.7 kDa (173 aa)

Formulation: Lyophilized from sterile-filtered 20 mM PBS, pH 6.0

Purity: ≥95% by SDS-PAGE and HPLC analyses

Endotoxin Level: <1 EU/µg as determined by LAL method.

Biological Activity: ED_{50} < 10 ng/ml, as determined by neutralizing the stimulation of U937 cells in the presence of 10 ng/mL soluble rHuRANKL (sRANKL).

Specific Activity: >1.0 × 10^5 IU/mg

Amino Acid Sequence: ETFPPKYLHY DEETSHQLLC DKCPPGTYLK QHCTAKWKTV CAPCPDHYYT DSWHTSDECL YCSPVCKELQ YVKQECNRTH NRVCECKEGR YLEIEFCLKH RSCPPGFGVV QAGTPERNTV CKRCPDGFFS NETSSKAPCR KHTNCSVFGL LLTQKGNATH DNICSGNSES TQK

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/ml.

Storage & Stability: Upon receipt, store at -20°C to -80°C. After reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, prepare working aliquots and store at -20°C to -80°C. For long term storage of reconstituted protein, it is recommended that a carrier protein such as 0.1% BSA or HSA be added. This depends on the particular application. **Avoid repeated freeze/thaw cycles.**

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