

**Product Name: Recombinant Human OPG (C-6His)**  
**Catalog #: PHH1255**

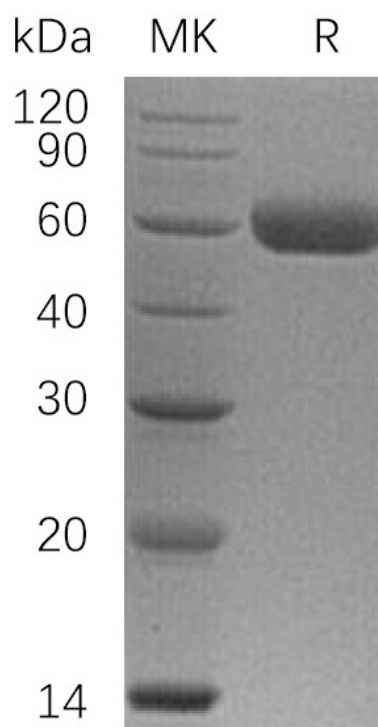


## Summary

<b>Name</b>	Osteoprotegerin/TNFRSF11B/OPG
<b>Purity</b>	Greater than 95% as determined by reducing SDS-PAGE
<b>Endotoxin level</b>	<1 EU/μg as determined by LAL test.
<b>Construction</b>	Recombinant Human Osteoprotegerin is produced by our Mammalian expression system and the target gene encoding Glu22-Leu401 is expressed with a 6His tag at the C-terminus.
<b>Accession #</b>	O00300
<b>Host</b>	Human Cells
<b>Species</b>	Human
<b>Predicted Molecular Mass</b>	44.65 KDa
<b>Formulation</b>	Lyophilized from a 0.2 μm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
<b>Stability&amp;Storage</b>	Lyophilized protein should be stored at ≤ -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.
<b>Reconstitution</b>	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

## SDS-PAGE image

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### Alternative Names

Tumor Necrosis Factor Receptor Superfamily Member 11B; Osteoclastogenesis Inhibitory Factor; Osteoprotegerin; TNFRSF11B; OCIF; OPG

### Background

TNFRSF11B is a secreted protein, containing 2 death domains and 4 TNFR-Cys repeats. TNFRSF11B is a decoy receptor for the receptor activator of nuclear factor kappa B ligand (RANKL). By binding RANKL, TNFRSF11B inhibits nuclear kappa B (NF- $\kappa$ B) which is a central and rapid acting transcription factor for immune-related genes, and a key regulator of inflammation, innate immunity, and cell survival and differentiation. TNFRSF11B levels are influenced by voltage-dependent calcium channels Cav1.2. TNFRSF11B can reduce the production of osteoclasts by inhibiting the differentiation of osteoclast precursors (osteoclasts are related to monocytes/macrophages and are derived from granulocyte/macrophage-forming colony units (CFU-GM)) into osteoclasts and also regulates the resorption of osteoclasts in vitro and in vivo. TNFRSF11B binding to RANKL on osteoblast/stromal cells, blocks the RANKL-RANK ligand interaction between osteoblast/stromal cells and osteoclast precursors. This has the effect of inhibiting the differentiation of the osteoclast precursor into a mature osteoclast.

### Note

For Research Use Only , Not for Diagnostic Use.