

## OPG Fc Human

**Description:** Recombinant OPG produced in yeast contains 412 amino acid residues, including 180 residues from mature OPG (a.a 22-201) and 232 residues from the Fc protein of human IgG1, and has a calculated molecular mass of 46.5 kDa. As a result of glycosylation, the recombinant Osteoprotegerin migrates as a 49 kDa protein in SDS-PAGE under reducing conditions. The OPG is purified by proprietary chromatographic techniques.

**Catalog #:** CYPs-273

For research use only.

**Synonyms:** TNFRSF11B, OPG, OCIF, Osteoclastogenesis inhibitory factor, TR1, MGC29565.

**Source:** Pichia Pastoris.

**Physical Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.

**Amino Acid Sequence:** AA Sequence: OPG 22-201:

ETFPKYLHYDEETSHQLLCDKCPPGTLYLKQHCTAKWKTVCAPCPDHYTDSWHTSDECLYCSP  
VCKELQYVKQECNRTHNRVCECKEGRYLEIEFCLKHRSCPPGFGVVQAGTPERNVCKRCPDG  
FFSNETSSKAPCRKHTNCSVFGLLLTQKGNATHDNICSGNSESTQKCGIDVTL.

**Purity:** Greater than 90.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

**Formulation:**

OPG was lyophilized from a 0.2m filtered concentrated (0.5mg/ml) solution in PBS, pH= 7.4.

**Stability:**

Lyophilized Osteoprotegerin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution OCIF should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Usage:**

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. They may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

**Solubility:**

It is recommended to reconstitute the lyophilized Osteoprotegerin in sterile 18M-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

**Introduction:**

Osteoprotegerin acts as decoy receptor for rankl and thereby neutralizes its function in osteoclastogenesis. OPG inhibits the activation of osteoclasts and promotes osteoclast apoptosis in vitro. Bone homeostasis seems to depend on the local rankl/opg ratio. Osteoprotegerin may also play a role in preventing arterial calcification. May act as decoy receptor for trail and protect against apoptosis. Trail binding blocks the inhibition of osteoclastogenesis.

**Biological Activity:**

Determined by its ability to neutralize the stimulation of U937 cells treated with 10ng/ml of soluble RANKL (sRANKL) corresponding to a Specific Activity of 100,000IU/mg.

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