

## OPG Human

**Description:** Recombinant Human Osteoprotegerin produced in E.coli cells is a single, non-glycosylated, polypeptide chain containing 174 amino acids and having a molecular mass of 20kDa. The OPG is purified by proprietary chromatographic techniques.

**Catalog #:** CYPs-184

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

For research use only.

**Source:** Escherichia Coli.

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

**Amino Acid Sequence:** METFPPKYLH YDEETSHQLL CDKCPPGYL KQHCTAKWKT  
VCAPCPDHYH TDSWHTSDEC LYCSPVCKEL QYVKQECNRT HNRVCECKEG RYLEIEFCLK  
HRSCPPGFGV VQAGTPERNT VCKRCPDGFF SNETSSKAPC RKHTNCSVFG LLLTQKGNAT  
HDNICSNGNSE STQK.

**Purity:** Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

**Formulation:**

The OPG was lyophilized from a 0.2

**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:**

The activity is determined by its ability to neutralize the stimulation of U937 cells treated with 10ng/ml of soluble RANKL corresponding to a specific activity of 100,000IU/mg.

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