



## Osteoprotegerin Human, Mouse Monoclonal Antibody, Clone: OPG-13

### Product Data Sheet

**Source of Antigen:** Synthetic peptide

**Host:** Mouse

**Isotype:** IgG1

**Cat. No.:**

RD182003110-13 (0.1 mg)

**Other names:** OPG, Osteoclastogenesis inhibitory factor, OCIF

### Research topic

Bone and cartilage metabolism

### Preparation

The antibody is a mouse monoclonal antibody against synthetic peptide of Human Osteoprotegerin. The peptide comprises AA21 to AA39 homologous with Human Osteoprotegerin (N-terminal C has been added to the peptide).

### Species Reactivity

Human

Not yet tested in other species.

### Purification Method

Affinity chromatography on a column with immobilized protein G.

### Antibody Content

0.1 mg (determined by BCA method, BSA was used as a standard)

### Formulation

The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2. **AZIDE FREE.**

### Reconstitution

Add 0.1 ml of deionized water and let the lyophilized pellet dissolve completely. Slight turbidity may occur after reconstitution, which does not affect activity of the antibody. In this case clarify the solution by centrifugation.

### Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

### Storage/Stability

The lyophilized antibody remains stable and fully active until the expiry date when stored at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles and store frozen at -80°C. Reconstituted antibody can be stored at 4°C for a limited period of time; it does not show decline in activity after one week at 4°C.

### Expiration

See vial label.

### Lot Number

See vial label.

### Quality Control Test

Indirect ELISA - to determine titer of the antibody

SDS PAGE - to determine purity of the antibody

### Applications

Western blotting

### Introduction to the Molecule

Osteoprotegerin (OPG) or osteoclastogenesis inhibitory factor (OCIF) is a secretory glycoprotein belonging to TNF receptor superfamily. OPG consists of 401 amino acid residues, it has a molecular weight of 60 kDa as a monomer and 120 kDa as a disulfide-linked dimer and is produced in different tissues, e.g. bone, skin, liver, stomach, intestine and lung. Osteoprotegerin inhibits the recruitment, proliferation and activation of osteoclasts. Osteoclast formation activity may be monitored principally by determination of concentration ratio of osteoprotegerin ligand (OPGL)/OPG. Alteration of this ratio may be the cause of bone loss in many imbalances in bone metabolism such as osteoporosis, osteopetrosis, hypercalcemia, metastatic osteolytic lesions and rheumatic bone degradation.

**Note**

This product is for research use only.

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