

OPG (Osteoprotegerin)

Analyte: Osteoprotegerin

Specimen Type: Serum, Inquire for additional option(s)

Optimum Volume: 1 mL

Stability:

2-8 Degrees C	-20 Degrees C	-70 Degrees C
2 weeks	6 weeks	6 weeks

Reporting Units: pmol/L

Method: ELISA

Biological or Clinical Significance:

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 disulfide-linked dimer and is produced in different tissues, e.g. bone, skin, liver, stomach, intestine and lung. OPG inhibits the change of RANK to RANKL (TRANCE, osteoprotegerin ligand, OPGL, osteoclast differentiation factor, ODF) and thus inhibits the recruitment, proliferation, and activation of osteoclasts. Since OPG exhibits an inhibitory effect on osteoclasts, it acts as a soluble factor in the regulation of bone mass. Osteoclast formation activity may be monitored principally by determination of the concentration ratio of 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.

Principle of Test Method:

The Osteoprotegerin assay is a solid-phase ELISA that employs the quantitative sandwich enzyme immunoassay principle.