



Osteoprotegerin, His Tag, human recombinant (rHuOPG-His)

Catalog No: 97160
Lot No: XXXXX
Source: *E. coli*
Synonyms: TNFRSF11B, OPG, OCIF, Osteoclastogenesis inhibitory factor, TR1, MGC29565

Background

Osteoprotegerin, which is a member of the tumor necrosis factor receptor superfamily and is involved in the regulation of bone metabolism. OPG and its ligand (OPGL) are cytokines regulating osteoclastogenesis. OPGL binds to receptors on the surface of preosteoclasts and stimulates their differentiation into active osteoclasts. This leads to osteoresorption. OPG inhibits this osteoclastogenesis (OPG is secreted by osteoblasts, and binds to OPGL, thus inhibiting maturation of osteoclasts and osteoresorption). The degree and activity of osteoresorption depend mainly on the balance between OPG and its ligand (OPGL); factors increasing OPGL expression mostly reduce OPG expression and vice versa.

Description

OCIF human recombinant produced in *E. coli* cells is a single, non-glycosylated, polypeptide chain containing amino acids 201-401 and having a molecular mass of 31 kDa which includes a 4 kDa His Tag. OPG is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a concentrated (1 mg/ml) solution with 1X PBS, 0.1% SDS and 1 mM DTT.

Solubility

It is recommended to reconstitute the lyophilized Osteoprotegerin in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

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.

Purity

Greater than 80.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Applications

Protein Assays*Antibody Production*WB

Usage

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