



Product Datasheet

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| Product Name | Osteoprotegerin Human Recombinant, His Tag |
| Cata No | CB500192 |
| Source | <i>Escherichia Coli</i> . |
| Synonyms | TNFRSF11B, OPG, OCIF, Osteoclastogenesis inhibitory factor, TR1, MGC29565. |

Description

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. Recombinant Human OCIF 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. The OPG is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried)

powder.

Purity

Greater than 80.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Formulation

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

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.

Application

1. Positive control for Western blot
2. Antibody production
3. Protein assay