
Product Data Sheet

Product Name: OPG Fc Human
Cat. No.: GP20795
Batch No.: 1

Product Data

Purity	>98%	Source	Pichia Pastoris.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.

Synonyms TNFRSF11B; OPG; OCIF; Osteoclastogenesis inhibitory factor; TR1; MGC29565.

Amino Acid Sequence OPG 22-201

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

Formulation OPG was lyophilized from a 0.2μm filtered concentrated solution in 20mM PB, pH 6.0, 150mM NaCl and 0.02 % Tween-80.

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 ED₅₀ as determined by neutralizing the stimulation of U937 cells is less than 10 ng/ml, corresponding to a specific activity of > 100,000IU/mg in the presence of 10ng/ml soluble human RANKL (sRANKL).

Stability

Lyophilized Osteoprotegerin although stable at room temperature for 3 weeks, should be

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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.

Background

Recombinant OPG produced in yeast contains 2x412 amino acid residues, including 180 residues from mature OPG (a.a 22-201) and 232 residues from the Fc protein of human IgG1, and has a calculated molecular mass of 109.6kDa.

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