



Product Datasheet

Product Name	Osteoprotegerin Human Recombinant /Fc Chimera
Cata No	CB500168
Source	<i>Pichia Pastoris</i>
Synonyms	TNFRSF11B, OPG, OCIF, Osteoclastogenesis inhibitory factor, TR1, MGC29565.

Description

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. Recombinant OPG produced in yeast contains 412 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 46.5 kDa. As a result of glycosylation, the recombinant Osteoprotegerin migrates as a 49 kDa protein in SDS-PAGE under reducing conditions. The OPG is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Biological Activity

Determined by its ability to neutralize the stimulation of U937 cells treated with 10ng/ml of soluble RANKL (sRANKL).

Purity

Greater than 90.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

Formulation

OPG was lyophilized from a 0.2µm filtered concentrated (0.5mg/ml) solution in PBS, pH= 7.4.

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.

Sequence

AA Sequence: OPG 22-201:

ETFPKYLHYDEETSHQLLCDKCPPGTYLKQHCT
AKWKTVCAPCPDHYY
TDSWHTSDECLYCSPVCKELQYVKQECNRTHNR
VCECKEGRYLEIEFCL
KHRSCPPGFGVVQAGTPERNVCKRCPDGFFSN
ETSSKAPCRKHTNCS
VFGLLLTQKGNATHDNICSGNSESTQKCGIDVTL

Fc232:

EPKSSDKTHTCPPCPAPEFEGAPSVFLFPPKPKD
TLMISRTPEVTCVVVDV
SHEDPEVKFNWYVDGVEVHNAKTKPREEQYNST
YRVVSVLTVLHQDWLN
GKEYKCKVSNKALPTPIEKTISKAKGQREPQVYTL

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PPSRDELTKNQVSLTC

LVKGFYPSDIAVEWESNGQPENNYKTTPVLDS

GSFFLYSKLTVDKSRW **Product Datasheet**

QQGNVFSCSVMHEALHNHYTQKSLSLSPGK

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