TNFRSF11B/OPG Protein, Human (CHO, Fc)

Cat. No.:	HY-P7053
Synonyms:	rHuOPG; Tumor necrosis factor receptor superfamily member 11B; TNFRSF11B; OCIF
Species:	Human
Source:	CHO
Accession:	O00300 (E22-L201)
Gene ID:	4982
Molecular Weight:	50-80 kDa

PROPERTIES

AA Sequence	E T F P P K Y L H Y D E E T S H Q L L C D K C P P G T Y L K Q H C T A K W K T V C A P C P D H Y Y T D S W H T S D E C L Y C S P V C K E L Q Y V K Q E C N R T H N R V C E C K E G R Y L E I E F C L K H R S C P P G F G V V Q A G T P E R N T V C K R C P D G F F S N E T S S K A P C R K H T N C S V F G L L L T Q K G N A T H D N I C S G N S E S T Q K C G I D V T L
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Osteoprotegerin (OPG), a glycoprotein, belongs to TNF receptor superfamily. OPG is expressed in many tissues besides osteoblasts, including heart, kidney, liver, spleen, and bone marrow. Human osteoprotegerin shares <85% aa sequence identity with mouse and rat. Mouse OX40 shares 94.5% aa sequence identity with rat[1]. Osteoprotegerin can bind to RANKL and inhibit the binding between TNFSF11 and RANKL, thereby neutralizing the RANKL function in osteoclastogenesis. Osteoprotegerin also protects large blood vessels from medial calcification. Increased osteoprotegerin levels have been consistently associated with the incidence and prevalence of coronary artery disease[1][3]. Osteoprotegerin is also involved in multiple processes of cancers, such as tumor survival, epithelial to mesenchymal

transition (EMT), neo-angiogenesis, invasion, and metastasis[2].
Osteoprotegerin plays a critical role in bone remodeling, and has osteoprotective effect[1].

REFERENCES

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