abcam

Product datasheet

Recombinant Human Osteoprotegerin protein ab110188

Overview

Product name	Recombinant Human Osteoprotegerin protein
Protein length	Full length protein

Description

Nature	Recombinant
Source	Yeast
Amino Acid Sequence	
Species	Human
Sequence	METFPPKYLH YDEETSHQLL CDKCPPGTYL KQHCTAKWKT VCAPCPDHYY TDSWHTSDEC LYCSPVCKEL QYVKQECNRT HNRVCECKEG RYLEIEFCLK HRSCPPGFGV VQAGTPERNT VCKRCPDGFF SNETSSKAPC RKHTNCSVFG LLLTQKGNAT HDNICSGNSE STQK

Specifications

Our Abpromise guarantee covers the use of **ab110188** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Functional Studies SDS-PAGE Blocking - Blocking peptide for Anti-Osteoprotegerin antibody (ab9986)
Endotoxin level	< 0.100 Eu/µg
Form	Lyophilised

Preparation and Storage

Stability and Storage	Shipped at 4°C. The lyophilized protein is stable for a few weeks at room temperature. Store at -20°C or -80°C. Avoid freeze / thaw cycle. Please see notes section.
Reconstitution	Centrifuge the vial prior to opening. Reconstitute in 5 mM Tris, pH 7.5 to a concentration of 0.1-1.0

mg/ml. Do not vortex. This solution can be stored at 2-8oC for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20oC to -80o C.

General Info

Function	Acts as decoy receptor for RANKL and thereby neutralizes its function in osteoclastogenesis. Inhibits the activation of osteoclasts and promotes osteoclast apoptosis in vitro. Bone homeostasis seems to depend on the local RANKL/OPG ratio. 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.
Tissue specificity	Highly expressed in adult lung, heart, kidney, liver, spleen, thymus, prostate, ovary, small intestine, thyroid, lymph node, trachea, adrenal gland, testis, and bone marrow. Detected at very low levels in brain, placenta and skeletal muscle. Highly expressed in fetal kidney, liver and lung.
Involvement in disease	Defects in TNFRSF11B are the cause of juvenile Paget disease (JPD) [MIM:239000]; also known as hyperostosis corticalis deformans juvenilis or hereditary hyperphosphatasia or chronic congenital idiopathic hyperphosphatasia. JPD is a rare autosomal recessive osteopathy that presents in infancy or early childhood. The disorder is characterized by rapidly remodeling woven bone, osteopenia, debilitating fractures, and deformities due to a markedly accelerated rate of bone remodeling throughout the skeleton. Approximately 40 cases of JPD have been reported worldwide. Unless it is treated with drugs that block osteoclast-mediated skeletal resorption, the disease can be fatal.
Sequence similarities	Contains 2 death domains. Contains 4 TNFR-Cys repeats.
Post-translational modifications	N-glycosylated. Contains sialic acid residues. The N-terminus is blocked.
Cellular localization	Secreted.

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