abcam

Product datasheet

Mouse Osteoprotegerin ELISA Kit ab100733

7 References 2 Images

Overview

Product name	Mouse Osteoprotegerin ELISA Kit
Detection method	Colorimetric
Sample type	Cell culture supernatant, Serum, Plasma
Assay type	Sandwich (quantitative)
Sensitivity	< 1 pg/ml
Range	1.65 pg/ml - 1200 pg/ml
Recovery	87 %

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	88.7	81% - 102%
Serum	91.7	82% - 104%
Plasma	81.9	65% - 89%

Assay duration	Multiple steps standard assay
Species reactivity	**Reacts with:** Mouse
Product overview	Abcam's Osteoprotegerin Mouse ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of mouse Osteoprotegerin in serum, plasma and cell culture supernatants. This assay employs an antibody specific for mouse Osteoprotegerin coated on a 96-well plate. Standards and samples are pipetted into the wells and Osteoprotegerin present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-mouse Osteoprotegerin antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of Osteoprotegerin bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.
Platform	Microplate

Properties

Storage instructions Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
200X HRP-Streptavidin Concentrate	1 x 200µl
20X Wash Buffer	1 x 25ml
5X Assay Diluent B	1 x 15ml
Assay Diluent A	1 x 30ml
Biotinylated anti-mouse Osteoprotegerin	2 vials
Osteoprotegerin Microplate (12 x 8 wells)	1 unit
Recombinant Mouse Osteoprotegerin Standard (lyophilized)	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

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.

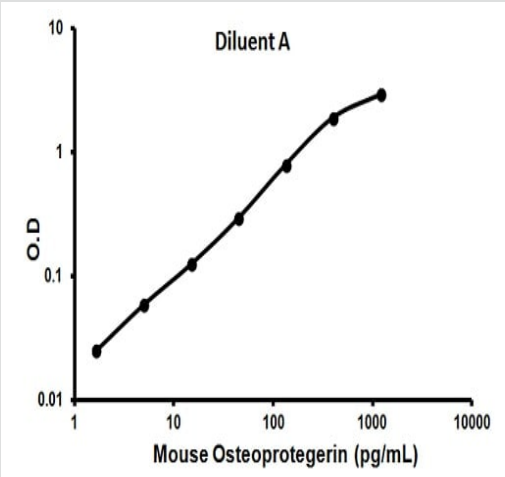
Involvement in disease Defects in TNFRSF11B are the cause of juvenile Paget disease (JPD) [MIM:239000]; also known as hyperostosis corticalis deformans juvenilis or hereditary hyperphosphatasia or chronic congenital idiopathic hyperphosphatasia. JPD is a rare autosomal recessive osteopathy that presents 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.

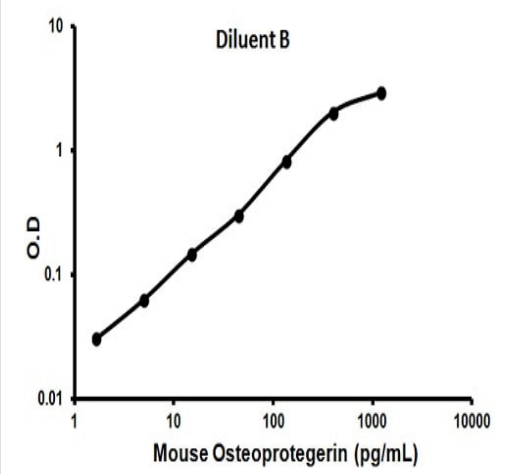
Cellular localization Secreted.

Images



Representative standard curve using ab100733

Typical standard curve



Representative standard curve using ab100733

Typical standard curve

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