abcam

Product datasheet

Anti-Osteoprotegerin antibody ab9986

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Overview

Product name	Anti-Osteoprotegerin antibody
Description	Rabbit polyclonal to Osteoprotegerin
Host species	Rabbit
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment corresponding to Human Osteoprotegerin. Database link: **O00300** Run BLAST with Run BLAST with
General notes	This product is no longer batch tested in IHC, for an IHC validated antibody please see **ab124820** The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Lyophilized:Reconstitute with 200µl of sterile water. Please note that if you receive this product in liquid form it has already been reconstituted as described and no further reconstitution is necessary.
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
Storage buffer	No preservative, sterile filtered
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	unknown
Light chain type	unknown

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab9986 in the following tested applications.

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

Application	Abreviews	Notes
WB		Use a concentration of 0.1 - 1 µg/ml. Detects a band of approximately 56 kDa (predicted molecular weight: 46 kDa). To detect hOPG by Western Blot analysis this antibody can be used at a concentration of 0.1 - 0.2 µg/ml. Used in conjunction with compatible secondary reagents the detection limit for recombinant hOPG is 1.5 - 3.0 ng/lane, under either reducing or non-reducing conditions.

Target

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.

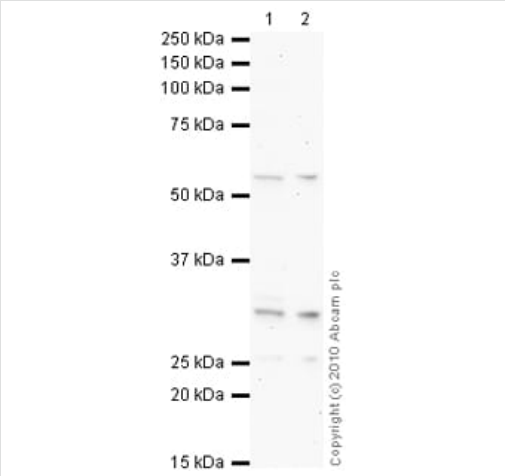
Involvement in disease Defects in TNFRSF11B are the cause of juvenile Paget disease (JPD) [MIM:239000]; also known as hyperostosis corticalis deformans juvenilis or hereditary hyperphosphatasia or chronic congenital idiopathic hyperphosphatasia. JPD is a rare autosomal recessive osteopathy that presents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



Western blot - Anti-Osteoprotegerin antibody (ab9986)

All lanes : Anti-Osteoprotegerin antibody (ab9986) at 1 µg/ml

Lane 1 : U2OS (Human osteosarcoma cell line) Whole Cell Lysate
Lane 2 : HEK293 (Human embryonic kidney cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 46 kDa
Observed band size: 56 kDa
Additional bands at: 32 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 150 seconds

Osteoprotegerin contains a number of potential glycosylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted.

- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors