

## Summary

|                        |                                 |
|------------------------|---------------------------------|
| <b>Production Name</b> | OPG Rabbit Polyclonal Antibody  |
| <b>Description</b>     | Rabbit Polyclonal Antibody      |
| <b>Host</b>            | Rabbit                          |
| <b>Application</b>     | WB,IHC-P,IF-P,IF-F,ICC/IF,ELISA |
| <b>Reactivity</b>      | Human,Mouse                     |

## Performance

|                     |                                                                                                   |
|---------------------|---------------------------------------------------------------------------------------------------|
| <b>Conjugation</b>  | Unconjugated                                                                                      |
| <b>Modification</b> | Unmodified                                                                                        |
| <b>Isotype</b>      | IgG                                                                                               |
| <b>Clonality</b>    | Polyclonal                                                                                        |
| <b>Form</b>         | Liquid                                                                                            |
| <b>Storage</b>      | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.          |
| <b>Buffer</b>       | Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N. |
| <b>Purification</b> | Affinity purification                                                                             |

## Immunogen

|                          |                                                                                                                                          |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | TNFRSF11B                                                                                                                                |
| <b>Alternative Names</b> | TNFRSF11B; OCIF; OPG; Tumor necrosis factor receptor superfamily member 11B; Osteoclastogenesis inhibitory factor; Osteoprotegerin;TR11B |
| <b>Gene ID</b>           | 4982.0                                                                                                                                   |
| <b>SwissProt ID</b>      | O00300.The antiserum was produced against synthesized peptide derived from human TR11B . AA range:10-59                                  |

## Application

|                       |                                                                                                                    |
|-----------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Dilution Ratio</b> | WB 1:500-1:2000, IHC-P 1:100-300, ELISA 1:20000, IF-P/IF-F/ICC/IF 1:100-300, Not yet tested in other applications. |
|-----------------------|--------------------------------------------------------------------------------------------------------------------|

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**Molecular Weight**      55kDa

## Background

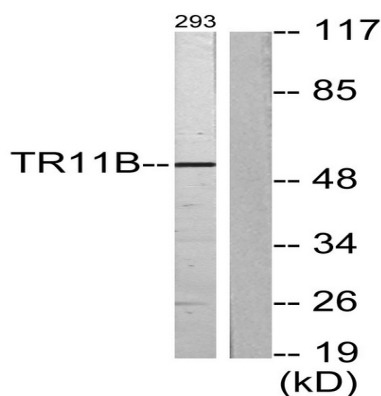
The protein encoded by this gene is a member of the TNF-receptor superfamily. This protein is an osteoblast-secreted decoy receptor that functions as a negative regulator of bone resorption. This protein specifically binds to its ligand, osteoprotegerin ligand, both of which are key extracellular regulators of osteoclast development. Studies of the mouse counterpart also suggest that this protein and its ligand play a role in lymph-node organogenesis and vascular calcification. Alternatively spliced transcript variants of this gene have been reported, but their full length nature has not been determined. [provided by RefSeq, Jul 2008],disease:Defects in TNFRSF11B are the cause of juvenile Paget disease (JPD) [MIM:239000]; also called 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.,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.,induction:Up-regulated by increasing calcium-concentration in the medium and estrogens. Down-regulated by glucocorticoids.,PTM:N-glycosylated. Contains sialic acid residues.,PTM:The N-terminus is blocked.,similarity:Contains 2 death domains.,similarity:Contains 4 TNFR-Cys repeats.,subunit:Homodimer.,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.,

## Research Area

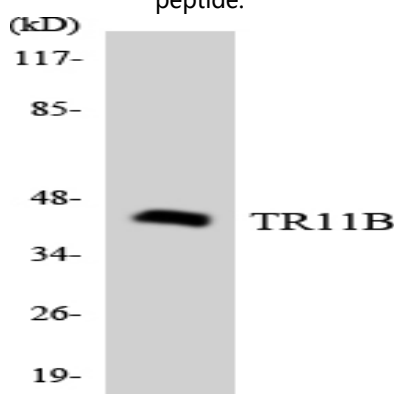
Cytokine-cytokine receptor interaction;

## Image Data

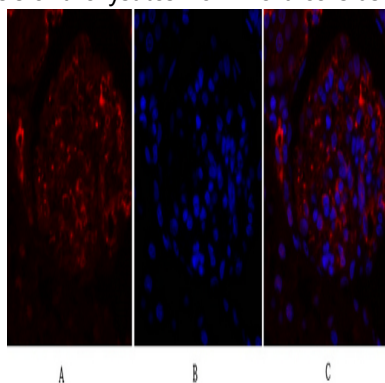
**Product Name: OPG Rabbit Polyclonal Antibody**  
**Catalog #: APRab15357**



Western blot analysis of lysates from 293 cells, using TR11B Antibody . The lane on the right is blocked with the synthesized peptide.



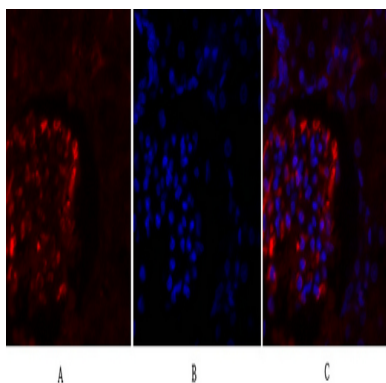
Western blot analysis of the lysates from HeLa cells using TR11B antibody.



Immunofluorescence analysis of rat-kidney tissue. 1,OPG Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) .  
2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min.

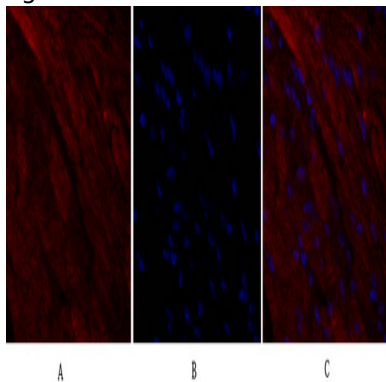
Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

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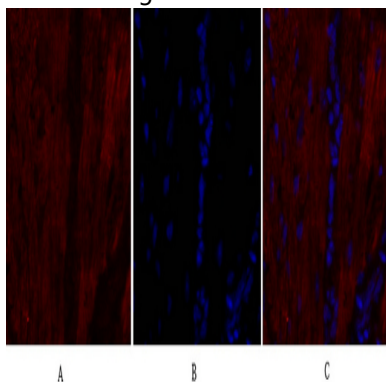


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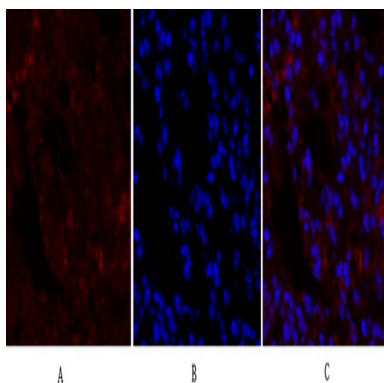


Immunofluorescence analysis of mouse-heart tissue. 1,OPG Polyclonal Antibody (red) was diluted at  
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DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

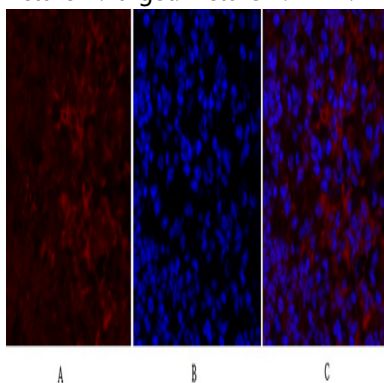


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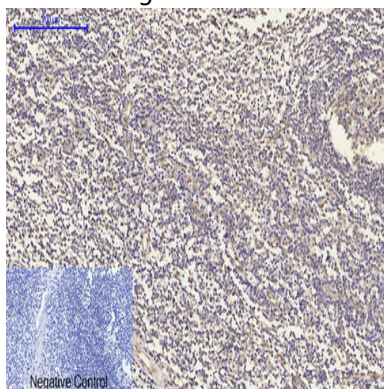
**Product Name: OPG Rabbit Polyclonal Antibody**  
**Catalog #: APRab15357**



Immunofluorescence analysis of mouse-lung tissue. 1,OPG Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of mouse-lung tissue. 1,OPG Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunohistochemical analysis of paraffin-embedded Human-Tonsil tissue. 1,OPG Polyclonal Antibody was diluted at 1:200 (4°C,overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min) . 3,Secondary antibody was diluted at 1:200 (room temperature, 30min) . Negative control was used by secondary antibody only.

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**Note**

For research use only.