



## Anti-Osteoprotegerin (OPG), Beagle-Polyclonal Antibody

**Catalog No.** GB-10526  
**Antigen species:** Human  
**Host species:** Beagle

**Quantity:** 250µl  
**Reactivity:** Human  
**Form:** Antiserum

**Applications tested:** Western blot

### Target description

Osteoprotegerin (OPG), which is a novel member of the TNF receptor superfamily. OPG can act as a soluble factor in the regulation of bone mass and imply a utility for OPG in the treatment of osteoporosis associated with increased osteoclast activity. In vitro OPG inhibits osteoclast formation and in vivo it reduces hypercalcemia and the establishment of osteolytic lesions in mouse models of tumor cell growth in bone. Previous study that OPG overexpression by breast cancer cells increases tumor growth in vivo and that there are strikingly different responses between therapeutically administered Fc-OPG and full-length OPG produced by tumor cells.

### Antigen

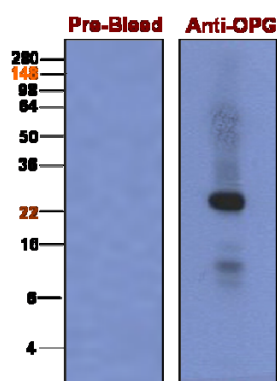
This polyclonal antibody was raised by immunizing beagle with an E. coli derived OPG (a.a. 201-401) fusion protein with His tag.

### Application

The antibody specificity was assayed by Western blot analysis with the OPG (a.a. 201-401) fusion protein. However, for the first testing, we recommend 1/5,000 dilution for ELISA, 1/10,000 dilution for Western blot analysis (WB) of recombinant protein, 1/4,000 dilution for tissue extracts or cell lysates, 1/100 dilution for immunohistochemistry (IHC) staining on frozen cryosections, 1/50 dilution for IHC staining on paraffin embedded sections.

### Related Products

1. Anti-Osteoprotegerin (OPG), rabbit pAb (GB-10506).



E. coli derived OPG (a.a. 201-401) fusion protein as test antigen.

### Western Blot protocol:

1. Block membrane with 3% BSA in TBS buffer for 1 hour at 37°C.
2. Incubate membrane with antibodies at dilution of 1: 6,000 with 1% milk in PBS-T at 37°C for 1 h.
3. Rinse 3 times with PBS-T, then wash membrane with PBS-T, 5 min each, total of 3 times.
4. Incubate with 2nd antibody (goat-anti-Fc-HRP) at dilution 1: 10,000 for ECL (with 1% milk PBS-T) at 37°C for 1 h.
5. Rinse 3 times with PBS-T, then wash with PBS-T, 5 min each with shaking, total of 3 times.
6. Perform ECL detection of signal using Pierce ECL kit.

### Storage

It is supplied as lyophilized antiserum of polyclonal antibody. Rehydrate the powder with 250 microliter sterile water will restore to the original condition. Store at 4°C for short-term application. For long-term storage, aliquot and store at -20°C.

### References

1. Simonet, W.S., Lacey, D.L., Dunstan, C.R., Kelley, M., Chang, M.S., Luthy, R., Nguyen, H.Q., Wooden, S., Bennett, L., Boone, T., Shimamoto, G., DeRose, M., Elliott, R., Colombero, A., Tan, H.L., Trail, G., Sullivan, J., Davy, E., Bucay, N., Renshaw-Gegg, L., Hughes, T.M., Hill, D., Pattison, W., Campbell, P., Sander, S., Van, G., Tarpley, J., Derby, P., Lee, R., Boyle, W.J. Osteoprotegerin: a novel secreted protein involved in the regulation of bone density. *Cell* 89 (2), 309-319, 1997.
2. Fisher J.L., Thomas-Mudge R.J., Elliott J., Hards D.K., Sims N.A., Slavin J., Martin T.J., Gillespie M.T. Osteoprotegerin overexpression by breast cancer cells enhances orthotopic and osseous tumor growth and contrasts with that delivered therapeutically. *Cancer Res.* 66(7):3620-8, 2006.