

Product datasheet for **AP11850PU-N**

Osteocalcin (BGLAP) (N-term) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	ELISA: 1/1,000. Western blot: 1/1000. Immunohistochemistry: 1/50-1/100.
Reactivity:	Human
Host:	Rabbit
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	Synthetic peptide KLH conjugated between 2~32 amino acids from the N-terminal region of Human Osteocalcin.
Specificity:	This antibody detects Osteocalcin at N-term.
Formulation:	PBS with 0.09% (W/V) Sodium Azide as preservative State: Purified State: Liquid purified Ig fraction.
Concentration:	lot specific
Purification:	Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	bone gamma-carboxyglutamate protein
Database Link:	Entrez Gene 632 Human P02818



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Background:

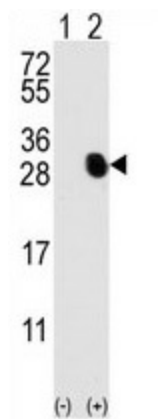
Prior to the formation of calcified bone, noncollagenous proteins form in the extracellular bone matrix. Gamma-carboxyglutamic acid residues are formed by vitamin K, vitamin-D regulated calcium binding proteins containing residues of Gla. These residues are essential for the binding of calcium and constitute 1-2% of total bone protein. Osteocalcin itself binds strongly to apatite and calcium. Production of osteocalcin is expressed late in normal bone development and is characteristic of mature osteoblasts. Regular osteocalcin production has been shown to be linked to the p53 tumor suppressor gene. The p53 gene undergoes rearrangement in a high percentage of osteosarcomas, resulting in loss of its expression. The loss of p53 regulation inhibits further osteocalcin production. The absence of end-point differentiation in bone due to p53 rearrangements and lack of osteocalcin production may contribute to the maintenance of the tumorigenic phenotype in osteosarcomas.

Synonyms:

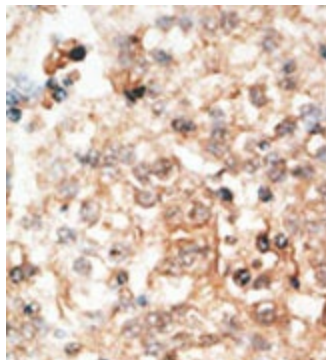
Bone Gla protein, BGLAP

Note:

Calculated Molecular weight: 10962 Da

Product images:

Western blot analysis of Osteocalcin (arrow) using rabbit polyclonal Osteocalcin Antibody (N-term). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the BGLAP gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human hepatocarcinoma reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.