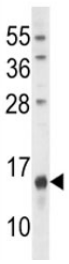
Osteocalcin Antibody (F47707)

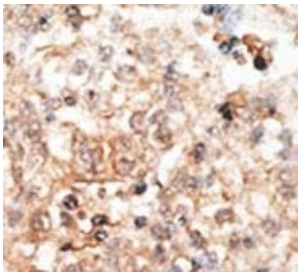
Catalog No.	Formulation	Size
F47707-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F47707-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	P02818
Localization	Cytoplasmic
Applications	Western Blot : 1:1000 IHC (Paraffin) : 1:50-1:100
Limitations	This Osteocalcin antibody is available for research use only.



Osteocalcin antibody western blot analysis in U251 lysate. Predicted molecular weight: ~12 kDa



IHC analysis of FFPE human hepatocarcinoma tissue stained with the Osteocalcin antibody

Description

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 constitue 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.

Application Notes

Titration of the Osteocalcin antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 2-32 from the human protein was used as the immunogen for this Osteocalcin antibody.

Storage

Aliquot the Osteocalcin antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.