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Anti-Osteocalcin Antibody

Catalog # AP60231

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P02818
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	10963

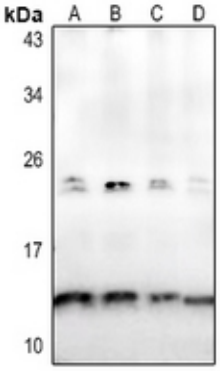
Additional Information

Gene ID	632
Other Names	Osteocalcin; Bone Gla protein; BGP; Gamma-carboxyglutamic acid-containing protein
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Osteocalcin. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

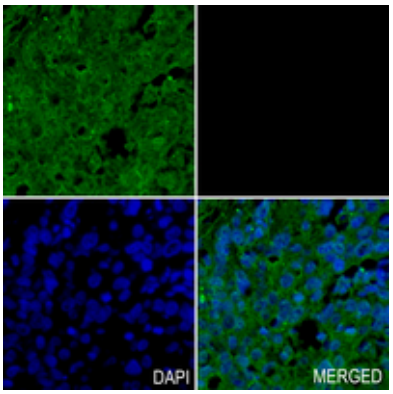
Protein Information

Name	BGLAP
Function	The carboxylated form is one of the main organic components of the bone matrix, which constitutes 1-2% of the total bone protein (PubMed:3019668, PubMed:6967872). Acts as a negative regulator of bone formation and is required to limit bone formation without impairing bone resorption or mineralization (By similarity). Binds strongly to apatite and calcium upon gamma-carboxylation; this modification is essential for bone metabolism (PubMed:6967872, PubMed:39880952).
Cellular Location	Secreted.

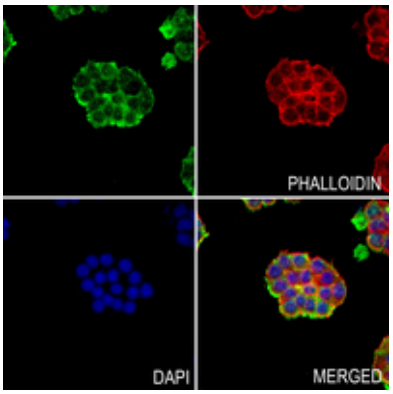
Images



Western blot analysis of Osteocalcin expression in HCT116 (A), HEK293T (B), PC12 (C), NIHC3T3 (D) whole cell lysates. (Predicted band size: 10 kD; Observed band size: 13 kD)



Immunohistochemical analysis of Osteocalcin staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. Tyramide-AF488 (green) was used as the chromogen. The section was then counterstained with DAPI (blue).



Immunofluorescent analysis of Osteocalcin staining in MDAMB231 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.