# Osteocalcin Rabbit mAb

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| **Catalog No** | YP-rAb-17470 |
| **Isotype** | IgG |
| **Reactivity** | Human,Mouse,Rat |
| **Applications** | WB,IHC,IF,ELISA |
| **Gene Name** | BGLAP |
| **Protein Name** | Osteocalcin (Bone Gla protein) (BGP) (Gamma-carboxyglutamic acid-containing protein) |
| **Purification Process** | Protein A |
| **Specificity** | Endogenous |
| **Formulation** | PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA |
| **Source** | Monoclonal, Rabbit,IgG |
| **Dilution** | WB 1:100-1:500; IHC 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0 |
| **Concentration** | 0.5 mg/ml |
| **Purity** | ≥90% |
| **Storage Stability** | -15° C to -25° C/1 year(Do not lower than -25° C) |
| **Synonyms** | |
| **Observed Band** | 22kD |
| **Calculated Molecular Weight** | 11kD |
| **Cell Pathway** | Secreted. |
| **Tissue Specificity** | Brain,Cerebellum,Colon,Lung carcinoma,Skin,Testis,Uterus, |
| **Function** | Constitutes 1-2% of the total bone protein. It binds strongly to apatite and calcium.,Part of the MIS12 complex which is required for normal chromosome alignment and segregation and kinetochore formation during mitosis. May act as a cotranscription partner of NFE2L2 involved in regulation of polyamine-induced transcription of SSAT.,induction:By polyamine analogs in analog-sensitive H157 cells.,online information:Osteocalcin entry,PTM:Gamma-carboxyglutamate residues are formed by vitamin K dependent carboxylation. These residues are essential for the binding of calcium.,similarity:Belongs to the osteocalcin/matrix Gla protein family.,similarity:Contains 1 Gla (gamma-carboxy-glutamate) domain.,subcellular location:Associated with the kinetochore.,subunit:Component of the MIS12 complex composed of MIS12, DSN1, NSL1 and PMF1. Interacts with COPS7A. Interacts via its coiled-coil domain with the leucine-zipper domain of NFE2L2. The interaction with NFE2L2 is required for the transcriptional |

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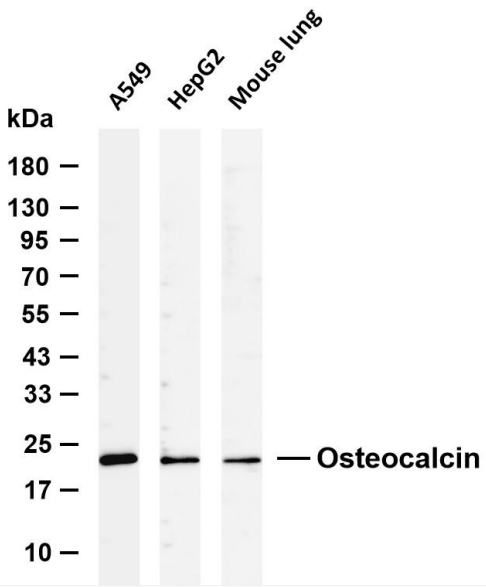
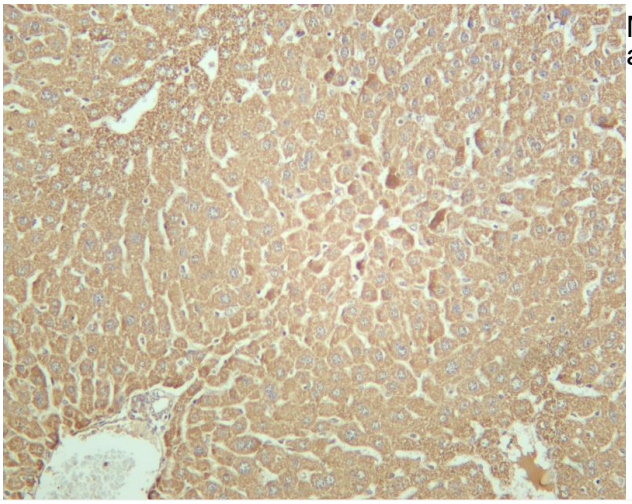
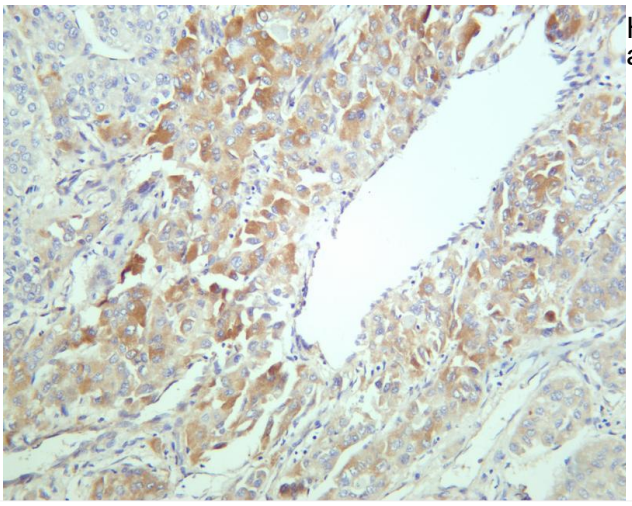
| | regulation of SSAT.,tissue specificity:Highest levels of expression in heart and skeletal muscle, with significant levels expressed in kidney and liver., |
| **Background** | This gene encodes a highly abundant bone protein secreted by osteoblasts that regulates bone remodeling and energy metabolism. The encoded protein contains a Gla (gamma carboxyglutamate) domain, which functions in binding to calcium and hydroxyapatite, the mineral component of bone. Serum osteocalcin levels may be negatively correlated with metabolic syndrome. Read-through transcription exists between this gene and the neighboring upstream gene, PMF1 (polyamine-modulated factor 1), but the encoded protein only shows sequence identity with the upstream gene product. [provided by RefSeq, Jun 2015], |
| **matters needing attention** | Avoid repeated freezing and thawing! |
| **Usage suggestions** | This product can be used in immunological reaction related experiments. For more information, please consult technical personnel. |



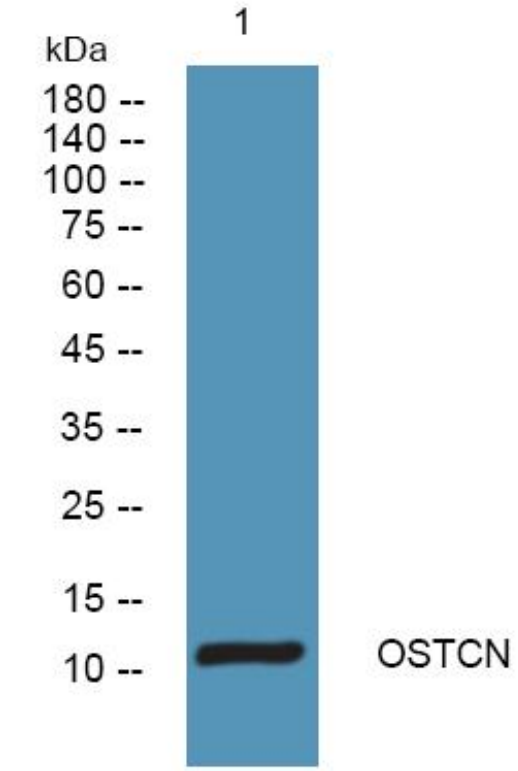

Various whole cell lysates were separated by 4-8% SDS-PAGE, and the membrane was blotted with anti-Osteocalcin antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: A549 Lane 2: HepG2 Lane 3: Mouse lung Predicted band size: 11kDa Observed band size: 22kDa



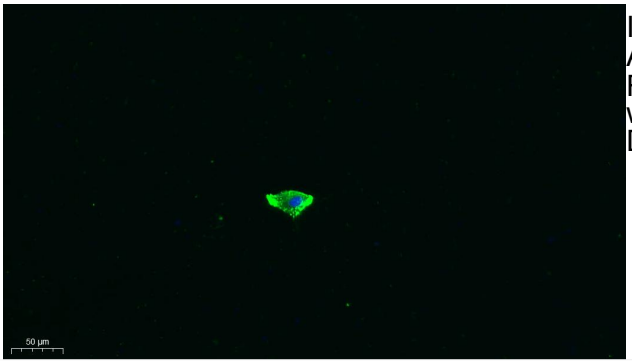
Mouse liver was stained with anti-Osteocalcin rabbit antibody



Human hepatocellular carcinoma was stained with anti-Osteocalcin rabbit antibody




Western blot analysis of lysates from KB cells, primary antibody was diluted at 1:1000, 4° over night



Immunofluorescence analysis of A549. 1,primary Antibody was diluted at 1:200(4℃ overnight). 2, Goat Anti Rabbit IgG (H&L) - Alexa Fluor 488 Secondary antibody was diluted at 1:1000(room temperature, 50min).3, DAPI(blue) 10min.