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Datasheet for ABIN1385851

anti-Osteocalcin antibody (AA 21-100)

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Overview

Quantity:	100 µL
Target:	Osteocalcin (BGLAP)
Binding Specificity:	AA 21-100
Reactivity:	Human, Rat, Mouse, Dog
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Osteocalcin antibody is un-conjugated
Application:	ELISA, Western Blotting (WB), Immunocytochemistry (ICC), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human Osteocalcin
Isotype:	IgG
Cross-Reactivity:	Dog, Human, Mouse, Rat
Predicted Reactivity:	Cow,Pig,Horse
Purification:	Purified by Protein A.

Target Details

Target:	Osteocalcin (BGLAP)
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Target Details

Alternative Name: Osteocalcin ([BGLAP Products](#))

Background: Synonyms: Osteocalcin, Bone Gla protein, BGP, Gamma-carboxyglutamic acid-containing protein, BGLAP

Background: Osteocalcin belongs to the osteocalcin/matrix Gla protein family and constitutes 1 to 2 % of the total bone protein. It is a 49 amino acid single chain vitamin K dependent protein, made by osteoblasts, and is a major component of the noncollagenous bone matrix. Post translational modification by a vitamin K dependent carboxylase produces three gamma carboxyglutamic acid residues at positions 17, 21 and 24, giving it a high affinity for calcium. It also binds strongly to apatite.

Gene ID: 632

UniProt: [P02818](#)

Application Details

Application Notes: WB 1:300-5000
ELISA 1:500-1000
IHC-P 1:200-400
IHC-F 1:100-500
IF(IHC-P) 1:50-200
IF(IHC-F) 1:50-200
IF(ICC) 1:50-200
ICC 1:100-500

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 µg/µL

Buffer: 0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.

Preservative: ProClin

Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

Storage: 4 °C, -20 °C

Handling

Storage Comment: Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Expiry Date: 12 months

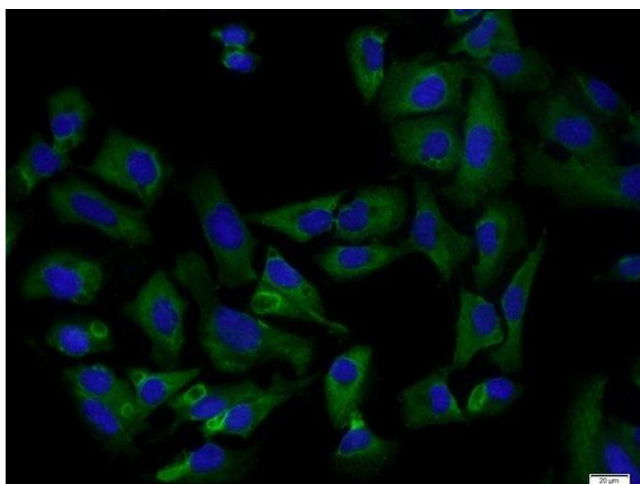
Publications

Product cited in: Jiang, Zhou, Huang, Wu, Huang, Liang, Liu, Zheng, Zhao: "Andrographolide Exerts Pro-Osteogenic Effect by Activation of Wnt/ β -Catenin Signaling Pathway in Vitro." in: **Cellular physiology and biochemistry : international journal of experimental cellular physiology, biochemistry, and pharmacology**, Vol. 36, Issue 6, pp. 2327-39, (2016) ([PubMed](#)).

Li, Zhou, Wang, Yang, Ding, Zhou: "Controlled dual delivery of BMP-2 and dexamethasone by nanoparticle-embedded electrospun nanofibers for the efficient repair of critical-sized rat calvarial defect." in: **Biomaterials**, Vol. 37, pp. 218-29, (2015) ([PubMed](#)).

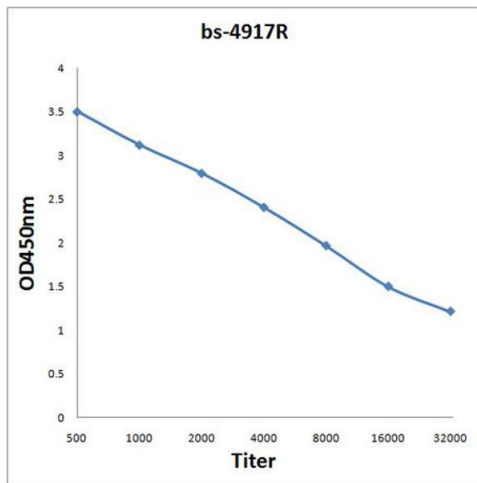
Ding, Li, Liu, Yang, Zhou, Zhou: "A nano-micro alternating multilayer scaffold loading with rBMSCs and BMP-2 for bone tissue engineering." in: **Colloids and surfaces. B, Biointerfaces**, Vol. 133, pp. 286-95, (2015) ([PubMed](#)).

Images



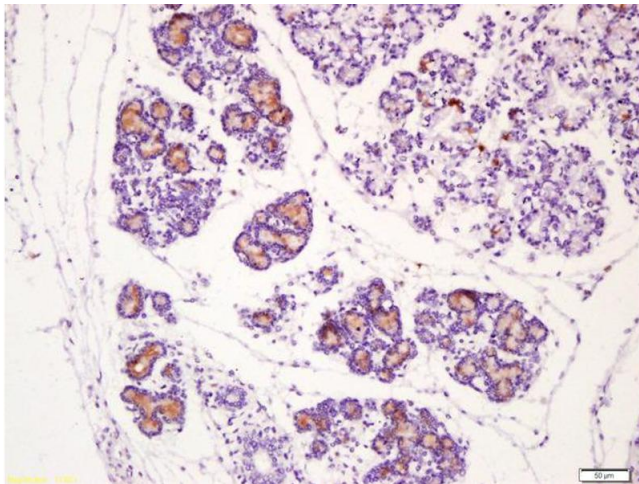
Immunofluorescence (Cultured Cells)

Image 1. Human U2-OS cells were stained with Osteocalcin Polyclonal Antibody, Unconjugated at 1:200 in PBS and incubated for two hours at 37°C followed by Goat Anti-Rabbit IgG (H+L) FITC conjugated secondary antibody. DAPI staining of the nucleus was done and then detected.



ELISA

Image 2. Antigen: 0.2 µg/100 µL Primary: Antiserum, 1:500, 1:1000, 1:2000, 1:4000, 1:8000, 1:16000, 1:32000; Secondary: HRP conjugated Goat Anti-Rabbit IgG at 1: 5000; TMB staining; Read the data in Microplate Reader by 450nm



Immunohistochemistry

Image 3. Formalin-fixed and paraffin embedded mouse embryo labeled with Anti-Osteocalcin Polyclonal Antibody, Unconjugated (ABIN1385851) at 1:200 followed by conjugation to the secondary antibody and DAB staining