

ARG54608 anti-Osteocalcin antibody [OCG4]

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [OCG4] recognizes Osteocalcin
Tested Reactivity	Hu, Bov, Chk, Dog, Goat, Pig, Rb, Sheep
Tested Application	ELISA, IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Clone	OCG4
Isotype	IgG1
Target Name	Osteocalcin
Species	Bovine
Immunogen	Bovine osteocalcin
Epitope	Residues 21-31
Conjugation	Un-conjugated
Alternate Names	OCN; Gamma-carboxyglutamic acid-containing protein; Osteocalcin; OC; Bone Gla protein; BGP

Application Instructions

Application Note	Sandwich ELISA: 1 - 10 µg/ml. Western blot: 1 - 10 µg/ml, reducing or non-reducing conditions. Immunohistochemistry: 1 - 10 µg/ml, paraffin-embedded or frozen tissue sections. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
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Properties

Form	Liquid
Buffer	10 mM PBS (pH 7.4) and 1% BSA
Stabilizer	1% BSA
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	BGLAP
Gene Full Name	bone gamma-carboxyglutamate (gla) protein

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]

Function

Constitutes 1-2% of the total bone protein. It binds strongly to apatite and calcium. [UniProt]

Research Area

Developmental Biology antibody; Signaling Transduction antibody

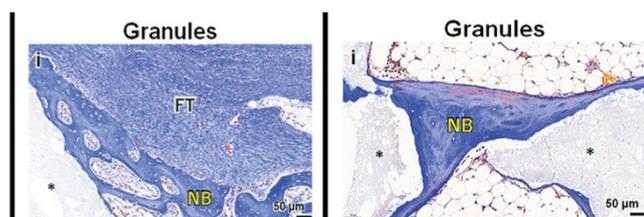
Calculated Mw

11 kDa

PTM

Gamma-carboxyglutamate residues are formed by vitamin K dependent carboxylation. These residues are essential for the binding of calcium.

Images



ARG54608 anti-Osteocalcin antibody [OCG4] IHC-P image

Immunohistochemistry: Rabbit femur stained with ARG54608 anti-Osteocalcin antibody [OCG4].

From Koichiro Hayashi et al. *Adv Healthc Mater* (2024), [doi: 10.1002/adhm.202303245](https://doi.org/10.1002/adhm.202303245), Fig. 7f & 8f.