

Anti-Osteocalcin Picoband Antibody

Catalog # ABO12603

Product Information

Application	IHC-P
Primary Accession	P02818
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Osteocalcin(BGLAP) detection. Tested with IHC-P in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	632
Other Names	Osteocalcin, Bone Gla protein, BGP, Gamma-carboxyglutamic acid-containing protein, BGLAP
Calculated MW	10963
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Subcellular Localization	Secreted.
Source	Eukaryota
Protein Name	Osteocalcin
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human Osteocalcin recombinant protein (Position: Y52-V100). Human Osteocalcin shares 69% and 80.9% amino acid (aa) sequence identity with mouse and rat Osteocalcin, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

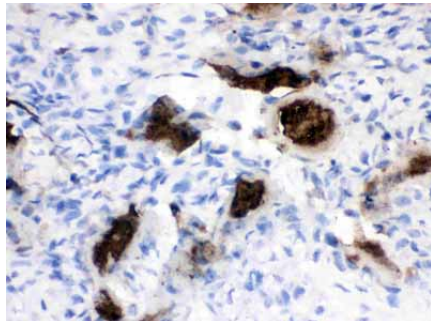
Protein Information

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.

Background

Osteocalcin, also known as bone gamma-carboxyglutamic acid-containing protein (BGLAP), is a noncollagenous protein found in bone and dentin. In humans, the osteocalcin is encoded by the BGLAP gene. Its receptor is GPRC6A. It is mapped to 1q22. Osteocalcin may play a role in the body's metabolic regulation and is pro-osteoblastic, or bone-building. It acts as a hormone in the body, causing beta cells in the pancreas to release more insulin, and at the same time directing fat cells to release the hormone adiponectin, which increases sensitivity to insulin. Also, it may play a role in male fertility. And it is found that picomolar amounts of osteocalcin affected insulin secretion and beta-cell proliferation.

Images



Osteocalcin was detected in paraffin-embedded sections of human osteosarcoma tissues using rabbit anti-Osteocalcin Antigen Affinity purified polyclonal antibody (Catalog # ABO12603) at 1 µg/mL. The immunohistochemical section was developed using SABC method.

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