

## Basic Information

Product Name	Anti-Osteocalcin/BGLAP Antibody	
Gene Name	BGLAP	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	rat	
Tested Application	IHC, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E. coli-derived rat Osteocalcin recombinant protein (Position: Y50-V99). Rat Osteocalcin shares 80.9% and 68.9% amino acid (aa) sequence identity with human and mouse Osteocalcin, respectively.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Dilution Ratios	Immunohistochemistry (IHC): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied.

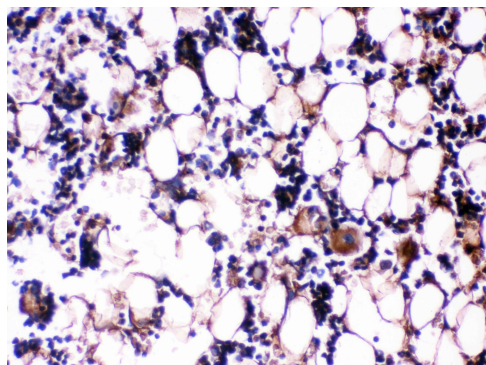
## Background Information

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.

## Reference

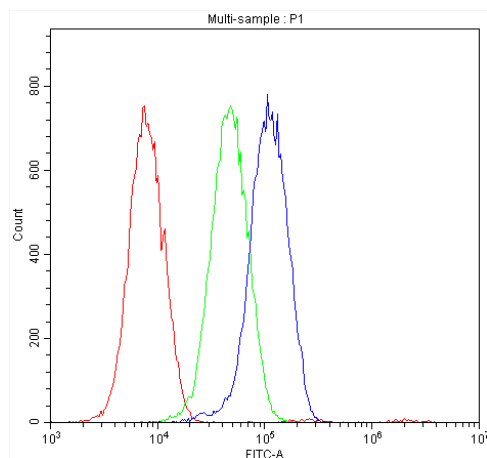
Anti-Osteocalcin/BGLAP Antibody被引用在15文献中。

## Selected Validation Data



IHC analysis of Osteocalcin/BGLAP using anti-Osteocalcin/BGLAP antibody (PB1009).

Osteocalcin/BGLAP was detected in a paraffin-embedded section of rat tibia tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-Osteocalcin/BGLAP Antibody (PB1009) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of L6 cells using anti-Osteocalcin antibody (PB1009). Overlay histogram showing L6 cells stained with PB1009 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Osteocalcin Antibody (PB1009, 1:100) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 1:100) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1:100) used under the same conditions. Unlabelled sample (Red line) was also used as a control.