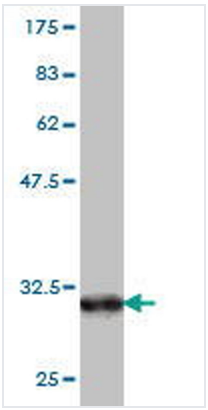
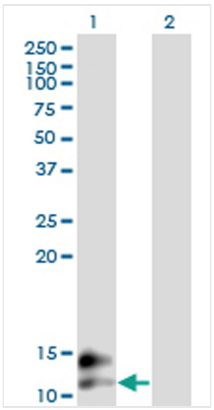
Osteocalcin (BGLAP) Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

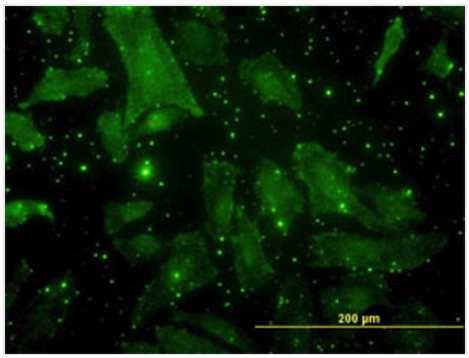
Product Name	Osteocalcin (BGLAP), Monoclonal Antibody
Full Product Name	Osteocalcin (Gamma-carboxyglutamic Acid-containing Protein, Bone Gla-protein, BGP, BGLAP) APC
Product Gene Name	anti-BGLAP antibody
Clonality	Monoclonal
Isotype	IgG1, lambda
Clone Number	2D4
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Allophycocyanin (APC).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human BGLAP.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: APC conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	11kDa
OMIM	112260
3D Structure	ModBase 3D Structure for P02818
Immunogen	Partial recombinant corresponding to aa52-100 from human BGLAP (NP_954642) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	YLYQWLGAPVPYPDPLEPRREVCELNPDCDELADHIGFQEAYRRFYGPV
Conjugate	APC
Product Categories/Family for anti-BGLAP antibody	Antibodies; Osteocalcin
Applications Tested/Suitable for anti-BGLAP antibody	ELISA (EIA), Immunofluorescence (IF), Western Blot (WB)
Application Notes for anti-BGLAP antibody	IF: 10ug/ml Applications are based on unconjugated antibody.
Related Product Information for anti-BGLAP antibody	MBS6138024 is an antibody targeting BGLAP. Also known as Osteocalcin (Gamma-carboxyglutamic Acid-containing Protein, Bone Gla-protein, BGP, BGLAP) APC. Reactive in Human. Host: Mouse.
Other Notes	Small volumes of anti-BGLAP antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



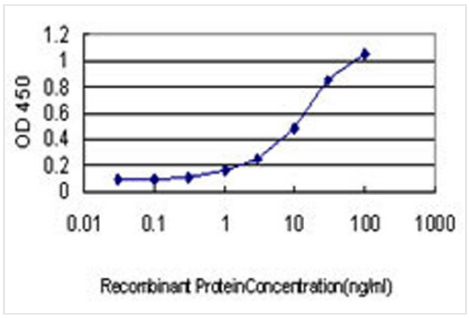
Western Blot (WB) of anti-BGLAP antibody
Western Blot detection against Immunogen (31.13kD).



Western Blot (WB) of anti-BGLAP antibody
Western Blot analysis of BGLAP expression in transfected 293T cell line by BGLAP monoclonal antibody. Lane 1: BGLAP transfected lysate (11kD). Lane 2: Non-transfected lysate.



Immunofluorescence (IF) of anti-BGLAP antibody
Immunofluorescence of monoclonal antibody to BGLAP on HeLa cell. [antibody concentration 10ug/ml].



Testing Data of anti-BGLAP antibody
Detection limit for recombinant GST tagged BGLAP is ~0.3ng/ml as a capture antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BGLAP. It may not necessarily be applicable to this product.

NCBI GI #	40316933
NCBI GeneID	632
NCBI Accession #	NP_954642
UniProt Primary Accession #	P02818
UniProt Related Accession #	P02818
GenBank Nucleotide #	NM_199173
NCBI Official Full Name	osteocalcin preproprotein
NCBI Official Synonym Full Names	bone gamma-carboxyglutamate protein
NCBI Official Symbol	BGLAP
NCBI Official Synonym Symbols	OC; BGP; OCN
UniProt Protein Name	Osteocalcin
UniProt Synonym Protein Names	Bone Gla protein; BGP; Gamma-carboxyglutamic acid-containing protein
Protein Family	Osteocalcin
UniProt Gene Name	BGLAP
UniProt Synonym Gene Names	BGP

UniProt Entry Name	OSTCN_HUMAN
NCBI Protein Information	osteocalcin
NCBI Summary for BGLAP	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]
UniProt Comments for BGLAP	osteocalcin: Constitutes 1-2% of the total bone protein. It binds strongly to apatite and calcium. Belongs to the osteocalcin/matrix Gla protein family. Protein type: Secreted, signal peptide; Secreted; Cell development/differentiation Chromosomal Location of Human Ortholog: 1q22 Cellular Component: Golgi apparatus; extracellular space; rough endoplasmic reticulum; dendrite; cytoplasm; perikaryon Molecular Function: structural constituent of bone; hydroxyapatite binding; calcium ion binding; structural molecule activity Biological Process: response to drug; response to gravity; regulation of bone resorption; response to glucocorticoid stimulus; cell aging; response to testosterone stimulus; bone mineralization; osteoblast development; odontogenesis; osteoblast differentiation; regulation of osteoclast differentiation; response to ethanol; response to vitamin D; response to vitamin K; response to estrogen stimulus; response to mechanical stimulus; response to zinc ion; response to hydroxyisoflavone; response to activity; cell adhesion; regulation of bone mineralization; skeletal development
Research Articles on BGLAP	**1.** OCN levels were inversely correlated with body fat parameters and obesity.
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