Active Recombinant Mouse Bglap Protein, GST-His-tagged

Cat. No. Bglap-1262M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Bglap Protein(P86546)(14-95 aa), fused with N-terminal GST tag and His tag, was expressed in E.coli.
Species	Mouse
Source	E.coli
ProteinLength	14-95 aa
Form	20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Bio-activity	Osteocalcin (OC), also known as bone gamma-carboxyglutamic acid-containing protein (BGLAP), is a noncollagenous protein hormone found in bone and dentin. Osteocalcin is secreted solely by osteoblasts and thought to play a role in the body's metabolic regulation and is pro-osteoblastic, or bone-building, by nature. It is also implicated in bone mineralization and calcium ion homeostasis. Osteocalcin 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. Besides, Furin (FUR) has been identified as an interactor of OC, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse OC and recombinant mouse FUR. Briefly, OC were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µl were then transferred to FUR-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-OC pAb, then aspirated and

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	washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µ stop solution to the wells and read at 450nm immediately. The binding activity of OC and FUR was in a dose dependent manner.
Molecular Mass	39.1kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	>95%
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 month.
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	Bglap bone gamma carboxyglutamate protein [Mus musculus]
Official Symbol	Bglap
Synonyms	BGLAP; bone gamma carboxyglutamate protein; osteocalcin; BGP; bone Gla protein; bone gamma carboxyglutamate protein 1; gamma-carboxyglutamic acid-containing protein; OC; OG1; mOC-A; Bglap1; Bglap2;
Gene ID	12096
mRNA Refseq	NM_001037939

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Protein Refseq	NP_001033028
Activity	
SDS-PAGE	

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