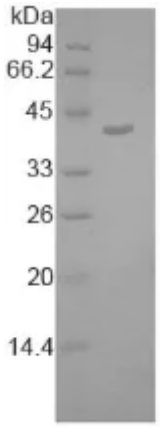
Active Osteocalcin (OC)

Catalog#:PXM12371

概述（Summary）

别称（Alternative Names）	BGLAP; OT; BGP; Bone Gla Protein; Bone Gamma-Carboxyglutamate Protein; Gamma-carboxyglutamic acid-containing protein
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Ala14-Ile95】
Accession #	P86546
表达宿主（Host）	-
种属（Species）	Mus musculus (Mouse)
预测分子量（Predicted MW）	39.1 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Constitutes 1-2% of the total bone protein. It binds strongly to apatite and calcium.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

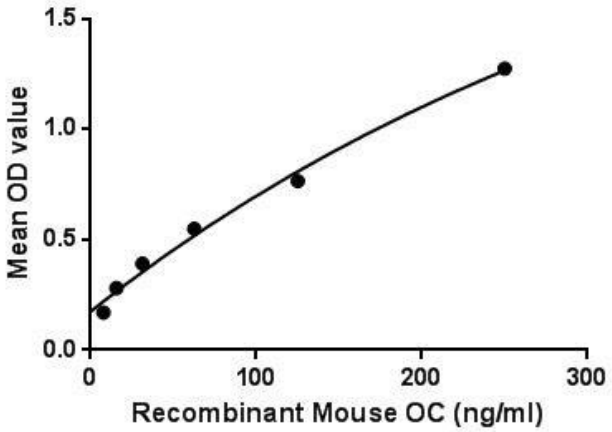


Figure. The binding activity of OC with FUR. Osteocalcin (OC), also known as bone gamma-carboxyglutamic acid-containing protein (BGLAP), is a noncollagenous protein hormone found in bone and dentin. Osteocalcin is secreted solely by osteoblasts and thought to play a role in the body's metabolic regulation 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℃. Wells were washed with PBST and incubated for 1h with anti-OC pAb, then aspirated and 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℃. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of OC and FUR was shown in Figure 1, and this effect was in a dose dependent manner.

注意事项（Note）

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