Osteocrin Human E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Human
Other names: Musclin, OSTN

Cat. No.:
RD172079100 (0.1 mg)

Description

Total 122 AA. MW: 13.6 kDa (calculated). UniProtKB acc.no. P61366. N-Terminal His-tag 16 AA (highlighted).

Introduction to the Molecule

Osteocrin is a recently identified secreted protein expression of which was only detected in bone, peaking just after birth and decreasing markedly with age. A 1280-bp mRNA encodes osteocrin producing a mature protein of 103 amino acids with a molecular mass of 11.4 kDa. In primary osteoblastic cell cultures osteocrin expression coincided with matrix formation then decreased in very mature cultures. Treatment of cultures with 1,25-dihydroxyvitamin D3 resulted in a rapid dose-dependent down-regulation of osteocrin expression, suggesting direct regulation. Chronic treatment of primary cultures with osteocrin-conditioned media inhibited mineralization and reduced osteocalcin and alkaline phosphatase expression. These results suggest that osteocrin represents a novel, unique vitamin D-regulated bone-specific protein that appears to act as a soluble osteoblast regulator.

Research topic

Bone and cartilage metabolism, Muscle growth control

Amino Acid Sequence

MRGSHHHHHH GMASHMVDVT TTEAFDSGVI DVQSTPTVRE EKSATDLTAK LLLLDELVSL ENDVIETKKK RSFSGFGSPL DRLSAGSVDH KGKQRKVVDH PKRRFGIPMD RIGRNRLSNS RG

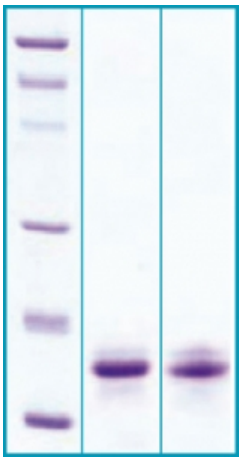
Source

E. coli

Purity

Purity as determined by densitometric image analysis: >95%

SDS-PAGE gel



12% SDS-PAGE separation of Human Osteocrin
1. M.W. marker - 14, 21, 31, 45, 66, 97 kDa
2. reduced and heated sample, 5µg/lane
3. non-reduced and non-heated sample, 5µg/lane

Endotoxin

< 1.0 EU/µg

Formulation

Filtered (0.4 µm) and lyophilized in 0.5 mg/mL in 0.05 M Acetate buffer, pH=4.0

Reconstitution

Add 0.1M Acetate buffer pH4 to prepare a working stock solution of approximately 0.5 mg/mL and let the lyophilized pellet dissolve completely. For conversion into higher pH value, we recommend intensive dilution by relevant buffer to a concentration of 10µg/mL. In higher concentrations the solubility of this antigen is limited. Filter sterilize your culture media/working solutions containing this non-sterile product before using in cell culture.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage, Stability/Shelf Life

Store lyophilized protein at -80°C. Lyophilized protein remains stable until the expiry date when stored at -80°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after one week at 4°C.

Quality Control Test

BCA to determine quantity of the protein.
SDS PAGE to determine purity of the protein.
LAL to determine quantity of endotoxin.

Applications

Western blotting

Note

This product is intended for research use only.

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