

Osteoblast Specific Factor 2 Human E. coli

Product Data Sheet

Type: Recombinant	Cat. No.:	
Source: E. coli	RD172045025	(0.025 mg)
Species: Human	RD172045100	(0.1 mg)
Other names: Periostin, PN, OSF-2, POSTN, Fasciclin-I like		

Description

Total 671 AA. MW: 75 kDa (calculated). UniProtKB acc.no. Q15063. N-Terminal HisTag and Xa - cleavage site 23 AA (highlighted).

Introduction to the Molecule

Periostin is a disulfide linked 90 kDa, 811 amino acid protein originally isolated as a osteoblast-specific factor that functions as a cell adhesion molecule for preosteoblasts and is thought to be involved in osteoblast recruitment, attachment and spreading. Additionally, periostin expression has previously been shown to be significantly increased by both transforming growth factor beta-1(TGFbeta1) and bone morphogenetic protein (BMP-2).

OSF-2 has a typical signal sequence, followed by a cysteine-rich domain, a fourfold repeated domain and a C-terminal domain. The fourfold repeated domain of OSF-2 shows homology with the insect protein fasciclin

Periostin mRNA is expressed in the developing mouse embryonic and fetal heart, and that it is localized to the endocardial cushions that ultimately divide the primitive heart tube into a four-chambered heart.

Research topic

Bone and cartilage metabolism, Cardiovascular disease, Cytokines and chemokines and related molecules, Oncology

Amino Acid Sequence

MGHHHHHHHH HHSSGHIEGR HMRNNHYDKI LAHSRIRGRD QGPNVCALQQ ILGTTKKKYFS TCKNWKYSI CGQKTTVLYE
 CCPGYMRMEG MKGCPAVLPI DHVYGTLGIV GATTTQRYSD ASKLREEIEG KGSFTYFAPS NEAWDNLSD IRRGLESNVN
 VELLNALHSH MINKRMLTKD LKNGMIIPSM YNNLGLFINH YPNGVVTVNC ARIIHGNQIA TNGVVHVIDR VLTQIGTSIQ
 DFIEAEDDLS SFRAAAITSD ILEALGRDGH FTLFAPTNEA FEKLPRGVLE RFMGDKVASE ALMKYHILNT LQCSESIMGG
 AVFETLEGNT IEIGCDGDSI TVNGIKMVNK KDIVTNGVI HLIDQVLIPD SAKQVIELAG KQTTFTDLV AQLGLASALR
 PDGEYTLAP VNNAFSDDTL SMVQRLKLI LQNHLKVKV GLNELYNGQI LETIGGQLR VFVYRTAVCI ENSCMEKGSK
 QGRNGAIHIF REIKPAEKS LHEKLNQDKR FSTFLSLLEA ADLKELLTQP GDWTLFVPTN DAFKGMTSEE KEILIRDKNA
 LQNIILYHLT PGVFIGKGFV PGVTNLIKTT QGSKIFLKEV NDTLLVNELK SKESDIMTTN GVIHVVDKLL YPADTPVGND
 QLEILNKLI KYIQIKFVRG STFKEIPVTY Y

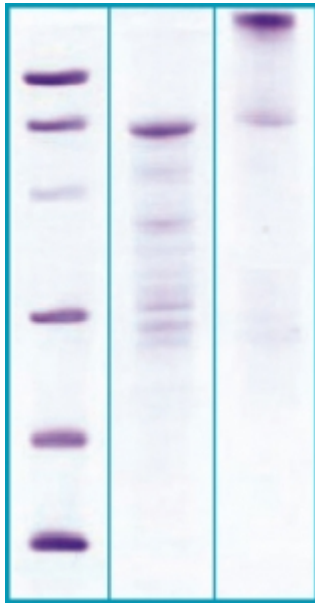
Source

E. coli

Purity

>90%

SDS-PAGE gel



12% SDS-PAGE separation of Human OSF-2
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/ug

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 pH=4.0 to prepare a working stock solution of approximately 0.5 mg/mL and let the lyophilized pellet dissolve completely at 37°C. 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

On ice. 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

ELISA, Western blotting

Note

This product is intended for research use only. The Certificate of Analysis is available on www.biovendor.com

References to this Product

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