PRODUCT DATA SHEET

Product: **Osteoblast-Specific Factor-2 (OSF-2, Periostin), human, recombinant His-tagged fusion protein**

Cat. No: **BC-167 (100 µg)**

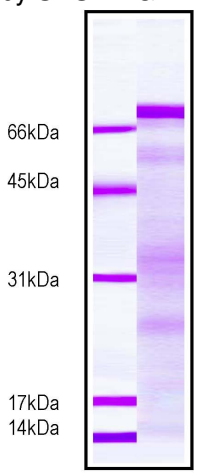
Description: Osteoblast-Specific Factor-2 (OSF-2, Periostin) is a disulfide linked 90 kDa, 811 amino acid protein originally isolated as a osteoblast-specific factor that functions as a cell adhesion molecule for preosteoblasts and is thought to be involved in osteoblast recruitment, attachment and spreading. Additionally, OSF-2 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 four-fold repeated domain and a C-terminal domain. The four-fold repeated domain of OSF-2 shows homology with the insect protein fasciclin.
OSF-2 mRNA is expressed in the developing mouse embryonic and fetal heart. The expression is localized to the endocardial cushions that ultimately divide the primitive heart tube into a four-chambered heart.
The Human OSF-2 is created as a recombinant protein with N-terminal fusion of His-Tag. The Human OSF-2 His-Tagged Fusion Protein, produced in *E. coli*, is 75 kDa protein containing 648 amino acid residues of the human OSF-2 and 23 additional amino acid residues – His-Tag, Xa-cleavage site (underlined).

<u>MGHHHHHHHH HHSSGHIEGR HMR</u>NNHYDKI
LAHSRIRGRD QGPNVCALQQ ILGTKKKYFS
TCKNWYKKSI CGQKTTVLYE CCPGYMRMEG
MKGCPAVLPI DHVYGTLGIV GATTTQRYSD
ASKLREEIEG KGSFTYFAPS NEAWDNLDSD
IRRGLESNVN VELLNALHSH MINKRMLTKD
LKNGMIIPSM YNNLGLFINH YPNGVVTVNC
ARIIHGNQIA TNGVVHVIDR VLTQIGTSIQ
DFIEAEDDLS SFRAAAITSD ILEALGRDGH
FTLFAPTNEA FEKLPRGVLE RFMGDKVASE
ALMKYHILNT LQCSESIMGG AVFETLEGNT
IEIGCDGDSI TVNGIKMVNK KDIVTNNGVI
HLIDQVLIPD SAKQVIELAG KQQTTFTDLV
AQLGLASALR PDGEYTLLAP VNNAFSDDTL
SMVQRLLKLI LQNHILKVKV GLNELYNGQI
LETIGGKQLR VFVYRTAVCI ENSCMEKGSK
QGRNGAIHIF REIIKPAEKS LHEKLKQDKR
FSTFLSLLEA ADLKELLTQP GDWTLFVPTN
DAFKGMTSEE KEILIRDKNA LQNIILYHLT
PGVFIGKGFE PGVTNILKTT QGSKIFLKEV
NDTLLVNELK SKESDIMTTN GVIHVVDKLL
YPADTPVGND QLLEILNKLI KYIQIKFVRG
STFKEIPVTVY

Origin: Produced in *E. coli*.

Format: 0.1 mg (determined by BCA method). Purified by three-step procedure using affinity Ni-NTA chromatography and size exclusion chromatography before and after refolding. Sterile filtered and lyophilized from 0.5 mg/ml in 0.05 M acetate buffer pH4.

Purity: >90% by SDS-PAGE



SDS-PAGE 12% separation of
human OSF-2, 5µg / lane.

Reconstitution: Add 0.2 ml of 0.1M Acetate buffer pH4 and let the lyophilized pellet dissolve completely. For conversion into higher pH value, we recommend intensive dilution by relevant buffer to a concentration of 10 µg/ml. In higher concentrations the solubility of this antigen is limited.

PRODUCT DATA SHEET

Specific Activity: The amino acid sequence of the recombinant human OSF-2 is 100% homologous to the part of sequence aa 22-669 of the human OSF-2 without signal sequence.

Storage and Stability: Store lyophilized protein at -20℃. The lyophilized protein remains stable until the expiration date when stored at -20℃. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4℃ for a limited period of time; it does not show any change after two weeks at 4℃.

Application:

- Western blotting
- ELISA

Limitations: For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.

.