

# Recombinant human IBSP/Sialoprotein II protein

Catalog Number: ATGP4129

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

17-317aa

### UniProt No.

P21815

### NCBI Accession No.

NP\_004958.2

### Alternative Names

Bone sialoprotein II, bone sialoprotein 2, BSP II, BSP, BSP-II, SP-II, Cell-binding sialoprotein, Integrin-binding sialoprotein, IBSP, BNSP

## PRODUCT SPECIFICATION

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### Molecular Weight

34.3kDa (307aa)

### Concentration

0.5mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 90% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured by the ability of the immobilized protein to support the adhesion of MCF7 human breast cancer cells. When cells are added to Human IBSP coated plates 3 ug/ml. This effect is more to 40%.

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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## BACKGROUND

### Description

IBSP, also known as Sialoprotein II, is a monomeric noncollagenous member of the SIBLING family of extracellular matrix (ECM) proteins. It is synthesized by platelets, osteoblasts, osteocytes, odontoblasts, osteoclasts and bone marrow stromal cells. It is a key mediator of the hypertrophic chondrocytes-induced angiogenesis. It was associated with the severity of histological cartilage lesions and with vascular density at the osteochondral junction. Recombinant human IBSP/Sialoprotein II, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

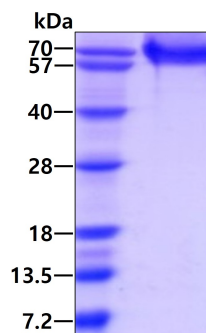
FSMKNLHRRV KIEDSENGV FKYRPRYYLY KHAYFYPHLK RFPVQGSSDS SEENGDDSS EEEEEETS N EGENNEESNE  
DEDSEAENTT LSATTLGYGE DATPGTGYTG LAAIQLPKKA GDITNKATKE KESDEEEEEEE EGNENESE AEVDENEQGI  
NGTSTNSTEA ENGNSSGGD NGEEGEEESV TGANAEDTTE TGRQKGKTSK TTTSPNGGFE PTTTPQVYRT TSPPF GKTTT  
VEYEGEYET GANEYDNGYE IYSENGEPR GDNYRAYEDE YSYFKGQGYD GYDGQNYHH Q<HHHHHH>

### General References

Pesesse L., et al. (2014) Osteoarthritis Cartilage. 22:547-556.  
Kruger TE., et al. (2014) Crit Rev Oncol Hematol. 89:330-341.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain