

# Recombinant human Osteopontin/OPN protein

Catalog Number: ATGP3951

## PRODUCT INFORMATION

---

### Expression system

E.coli

### Domain

17-314aa

### UniProt No.

P10451

### NCBI Accession No.

NP\_001035147

### Alternative Names

OPN, SPP-1, BNSP, BSPI, ETA-1, Bone sialoprotein 1, BSP I.Early T lymphocyte activation 1, ETA 1, ETA1, MGC110940, Nephropontin, Secreted phosphoprotein 1, SPP 1, SPP1, urinary stone protein, uropontin,

## PRODUCT SPECIFICATION

---

### Molecular Weight

36.2 kDa (321aa) confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appear higher)

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 7.5) containing 1mM DTT, 10% glycerol, 2mM EDTA

### 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 HEK293 human embryonic kidney cells. When cells are added to OPN coated plates 10ug/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.

# Recombinant human Osteopontin/OPN protein

Catalog Number: ATGP3951

## BACKGROUND

### Description

Osteopontin (OPN), also known as Secreted phosphoprotein 1 (SPP1), is a human gene product which is conserved in other species. This protein is glycoprotein that was first identified in osteoblasts and plays an important role in bone remodeling, immune functions in fibroblasts, macrophages, and lymphocytes during inflammation and wound healing. Recombinant human Osteopontin protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography.

### Amino acid Sequence

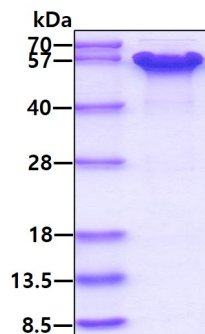
<MGSSHHHHHH SSGLVPRGSH> RSMIPVKQAD SGSSEEKQLY NKYPDAVATW LNPDPQKQN LLAPQNAVSS  
EETNDFKQET LPSKSNESHDMDDMDEDD DDHVDSQDSI DSNDSDDVDD TDDSHQSDDES HHSDESEDELV  
TDFPTDLPAT EVFTPVVPTV DTYDGRGDSV VYGLRSKSKK FRRPDIQYPD ATDEDITSHM ESEELNGAYK AIPVAQDLNA  
PSDWDSRGKD SYETSQLDDQ SAETHSHKQS RLYKRKANDE SNEHSDVIDS QELSKVSREF HSEHFHSHED MLVVDPKSKE  
EDKHLKFRIS HELDSASSEV N

### General References

Koh A., et al. (2007). *Immunology*. 122(4):466-75  
Sodek J., et al. (2006). *J Dent Res*. 85(5):404-15

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.