Catalog # OPN-M82E8



#### Synonym

SPP1,BNSP,OPN,Uropontin,Nephropontin,Osteopontin,BSP-1,ETA-1,BSPI

### Source

Biotinylated Mouse Osteopontin, His, Avitag(OPN-M82E8) is expressed from human 293 cells (HEK293). It contains AA Leu 17 - Asn 294 (Accession # <u>Q547B5-1</u>).

Predicted N-terminus: Leu 17

## **Molecular Characterization**

OPN(Leu 17 - Asn 294) Q547B5-1 Poly-his Avi

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag<sup>TM</sup>).

The protein has a calculated MW of 34.3 kDa. The protein migrates as 45-55 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Labeling

Biotinylation of this product is performed using Avitag<sup>™</sup> technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

## **Protein Ratio**

Passed as determined by the HABA assay / binding ELISA.

## Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL method.

# **SDS-PAGE**

kDa	М	R
116.0	_	
66.2	-	
45.0	-	-
35.0	-	
25.0	-	
18.4		
14.4	-	

#### Biotinylated Mouse Osteopontin, His, Avitag on SDS-PAGE under reducing (R)

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22  $\mu$ m filtered solution in PBS, 0.2 M Arginine, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

#### Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

condition. The gel was stained with Coomassie Blue. The purity of the protein

is greater than 95%.





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Osteopontin (OPN) is also known as Secreted phosphoprotein 1 (SPP1), Bone sialoprotein 1, Nephropontin, Urinary stone protein, Uropontin, BNSP, which belongs to the osteopontin family. OPN / SPP1 is a highly negatively charged, extracellular matrix protein that lacks an extensive secondary structure. Full length OPN (OPN-FL) can be modified by thrombin cleavage, which exposes a cryptic sequence, SVVYGLR on the cleaved form of the protein known as OPN-R. Osteopontin / SPP-1 is biosynthesized by a variety of tissue types. OPN is the ligand for integrin alpha-V/beta-3. OPN / SPP1 binds tightly to hydroxyapatite and appears to form an integral part of the mineralized matrix. OPN / SPP1 probably important to cell-matrix interaction. OPN / SPP1 acts as a cytokine involved in enhancing production of interferon-gamma and interleukin-12 and reducing production of interleukin-10 and is essential in the pathway that leads to type I immunity.

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