

## Recombinant Human SPP1 protein, His-tagged

Cat. No. SPP1-336H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human SPP1 protein (Ile17-Asn300), fused to His tag at C-terminus, was expressed in human 293 cells (HEK293).
<b>Species</b>	Human
<b>Source</b>	HEK293
<b>ProteinLength</b>	284
<b>Description</b>	<p>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.</p>
<b>Form</b>	Lyophilized from 0.22 um filtered solution in PBS, pH7.4, 10% trehalose.
<b>Molecular Mass</b>	The protein has a calculated MW of 33 kDa. The protein migrates as 60-65 kDa under

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	reducing (R) condition (SDS-PAGE) due to glycosylation.
<b>Endotoxin</b>	Less than 1.0 EU per ug by the LAL method.
<b>Purity</b>	>80% as determined by SDS-PAGE.
<b>Storage</b>	<p>For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.</p> <p>Please avoid repeated freeze-thaw cycles.</p> <p>This product is stable after storage at:</p> <p>-20 centigrade to -70 centigrade for 12 months in lyophilized state;</p> <p>-70 centigrade for 3 months under sterile conditions after reconstitution.</p>
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

## GENE INFORMATION

<b>Gene Name</b>	SPP1
<b>Official Symbol</b>	SPP1
<b>Synonyms</b>	<p>SPP1; secreted phosphoprotein 1; BNSP, bone sialoprotein I , OPN, osteopontin; osteopontin; BSPI; early T lymphocyte activation 1; ETA 1; uropontin; nephropontin; osteopontin-C; osteopontin-D; SPP1/CALPHA1 fusion; bone sialoprotein 1; urinary stone protein; early T-lymphocyte activation 1; osteopontin/immunoglobulin alpha 1 heavy chain constant region fusion protein; secreted phosphoprotein 1 (osteopontin, bone sialoprotein I, early T-lymphocyte activation 1); OPN; BNSP; ETA-1; MGC110940</p>
<b>Gene ID</b>	6696

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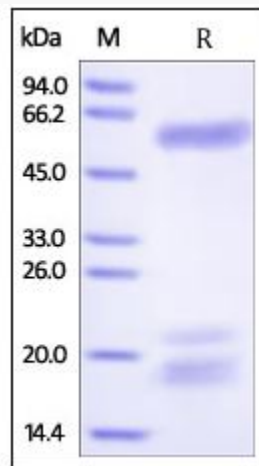
mRNA Refseq [NM\\_000582](#)

Protein Refseq [NP\\_000573](#)

MIM [166490](#)

UniProt ID [P10451](#)

**SDS-PAGE of SPP1-336H**



Human OPN, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 80%.

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