

## Active Recombinant Human SPP1 Protein, His-tagged

Cat. No. SPP1-040H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant human Osteopontin protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	The protein encoded by this gene is involved in the attachment of osteoclasts to the mineralized bone matrix. The encoded protein is secreted and binds hydroxyapatite with high affinity. The osteoclast vitronectin receptor is found in the cell membrane and may be involved in the binding to this protein. This protein is also a cytokine that upregulates expression of interferon-gamma and interleukin-12. Several transcript variants encoding different isoforms have been found for this gene.
<b>Form</b>	Liquid
<b>Bio-activity</b>	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 10 µg/mL. This effect is more to 40%.
<b>Molecular Mass</b>	36.2 kDa
<b>AA Sequence</b>	RSMIPVKQADSGSSEEKQLYNKYDPDAVATWLNPDPSQKQNLLAPQNAVSSSEETNDF KQETLPSKSNESHDMDDMDEDDDDHVDSQDSIDSNDSDDDVDDTDDSHQSDDES HHSDESDELVTDFPTDLPATEVFVPTVDTYDGRGDSVVYGLRSKSKKFRPPDIQ

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YPDATDEDITSHMESEELNGAYKAIPVAQDLNAPSDWDSRGKDSYETSQLDDQSAE  
 TSHKQSRLYKRKANDESNEHSDVIDSQELSKVSREFHSHEFHSHEDMLVVDPKSK  
 EEDKHLKFRISHELDSASSEVN

**Purity** > 90% by SDS-PAGE

**Applications** SDS-PAGE, Bioactivity

**Storage** Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -119 centigrade. Avoid repeated freezing and thawing cycles.

**Concentration** 1 mg/mL (determined by Bradford assay)

**Storage Buffer** 20mM Tris-HCl buffer (pH 7.5) containing 1mM DTT, 10% glycerol, 2mM EDTA

## GENE INFORMATION

**Gene Name** [SPP1 secreted phosphoprotein 1 \[ Homo sapiens \(human\) \]](#)

**Official Symbol** [SPP1](#)

**Synonyms** SPP1; secreted phosphoprotein 1; OPN; BNSP; BSPI; ETA-1; osteopontin; SPP1/CALPHA1 fusion; early T-lymphocyte activation 1; nephropontin; osteopontin/immunoglobulin alpha 1 heavy chain constant region fusion protein; secreted phosphoprotein 1 (osteopontin, bone sialoprotein I, early T-lymphocyte activation 1); secreted phosphoprotein 1 variant 6; urinary stone protein; uropontin

**Gene ID** [6696](#)

**mRNA Refseq** [NM\\_001040058](#)

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**Protein Refseq** NP\_001035147

**MIM** 166490

**UniProt ID** P10451

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