

Active Recombinant Human SPP1 Protein, His-tagged

Cat. No. SPP1-004H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human SPP1 Protein (17-314aa) with His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	17-314aa
Description	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.
Form	Liquid
Bio-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 10 µg/mL. This effect is more to 40%.
Molecular Mass	36.2 kDa (321aa) confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appear higher)
AA Sequence	RSMIPVKQADSGSSEEKQLYNKYPDAVATWLNPDPSQKQKQKLLAPQNAVSSSEETNDF

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KQETLPSKSNESHDMDDMDEDDDDHVDSQDSIDSNDSDDVDDTDDSHQSDS
 HHSDESDELVTDFPTDLPATEVFTPVVPTVDTYDGRGDSVVYGLRSKSKKFRRPDIQ
 YPDATDEDITSHMESEELNGAYKAIPVAQDLNAPSDWDSRGKDSYETSQLDDQSAE
 THSHKQSRLYKRKANDESNEHSDVIDSQELSKVSREFHSHEFHSHEDMLVVDPKSK
 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 -80 centigrade. Avoid repeated freezing and thawing cycles.

Concentration 1 mg/mL (determined by Bradford assay)

Storage Buffer In 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](#)

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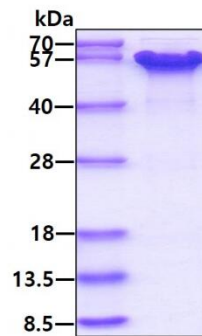
mRNA Refseq [NM_001040058](#)

Protein Refseq [NP_001035147](#)

MIM [166490](#)

UniProt ID [P10451](#)

SDS-PAGE



3 μ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

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