Active Recombinant Human SPP1 Protein, His-tagged

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

SPECIFICATION

Product Overview	Recombinant human Osteopontin protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
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
AA Sequence	RSMIPVKQADSGSSEEKQLYNKYPDAVATWLNPDPSQKQNLLAPQNAVSSEETNDF KQETLPSKSNESHDHMDDMDDEDDDDHVDSQDSIDSNDSDDVDDTDDSHQSDES HHSDESDELVTDFPTDLPATEVFTPVVPTVDTYDGRGDSVVYGLRSKSKKFRRPDIQ

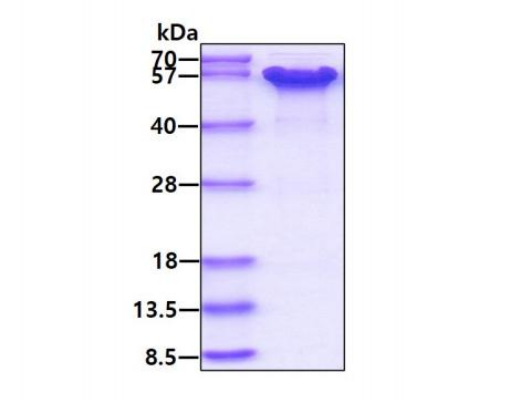
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	YPDATDEDITSHMESEELNGAYKAIPVAQDLNAPSDWDSRGKDSYETSQLDDQSAETHSHKQSRLYKRKANDESNEHSDVIDSQELSKVSREFHSHEFHSHEDMLVVDPKSKEEDKHLKFRISHELDSASSEVN
Purity	> 90% by SDS-PAGE
Applications	SDS-PAGE, Bioactivity
Storage	Can be stored at +2 to +8 centigrade for 1 week. 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
SDS-PAGE	 3 μg by SDS-PAGE under reducing condition and visualized by coomassie blue stain

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