# Recombinant Human SPP1 protein, His-tagged

**Cat. No.** SPP1-570H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Human SPP1 (P10451) aa. (Ile17~Asn287) fused with His tag was produced in E. coli cells. |
| **Species** | Human |
| **Source** | E.coli |
| **ProteinLength** | Ile17~Asn287 |
| **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** | Freeze-dried powder |
| **Molecular Mass** | Predicted Molecular Mass: 32.2kDa; Accurate Molecular Mass: 60kDa as determined by SDS-PAGE reducing conditions. |
| **Endotoxin** | <1.0EU per 1ug (determined by the LAL method) |
| **Purity** | >95% |

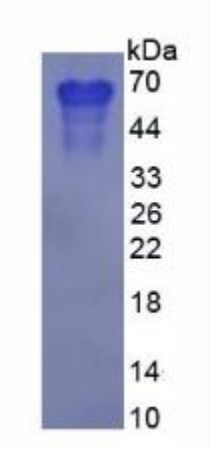
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| **Characteristic** | Isoelectric point is 4.3. |
| **Applications** | Cell culture; Activity Assays; In vivo assays. |
| **Stability** | The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition. |
| **Storage** | Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months. |
| **Storage buffer** | 20mM Tris, 150mM NaCl,pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5% Trehalose and Proclin300. |
| **Reconstitution** | Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex |

## GENE INFORMATION

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| **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_000582.2 |
| **Protein Refseq** | NP_000573.1 |
| **UniProt ID** | P10451 |
| **SDS-PAGE** |  |



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