

## 32-7495: Recombinant Human Secreted Phosphoprotein 1/SPP1 /SPP1 (C-6His)(Discontinued)

**Gene :** SPP1  
**Gene ID :** 6696  
**Uniprot ID :** P10451

### Description

Source: Human Cells.  
MW :34.75kD.

Recombinant Human Secreted Phosphoprotein 1 is produced by our Mammalian expression system and the target gene encoding Ile17-Asn314 is expressed with a 6His tag at the C-terminus. Secreted Phosphoprotein 1 (SPP1) is a secreted multifunctional glycoprotein. Its putative functions include roles in bone metabolism, immune regulation, wound healing, cell survival, and tumor progression. Based on gene structure and chromosomal location, SPP1 is a member of the small integrin-binding ligand N-linked glycoprotein (SIBLING) family that also includes bone sialoprotein (BSP), dentin matrix protein 1 (DMP1), dentin sialophosphoprotein (DSPP), enamelin (ENAM), and matrix extracellular phosphoglycoprotein (MEPE). SPP1 is expressed in bone, although it is also expressed in other tissues. SPP1 acts as a cytokine that is involved in enhancing production of interferon-gamma and interleukin-12 and reducing production of interleukin-10. It is essential in the pathway that leads to type I immunity. Osteopontin has been implicated as an important factor in bone remodeling. Specifically, research suggests it plays a role in anchoring osteoclasts to the mineral matrix of bones. The fact that SPP1 interacts with multiple cell surface receptors which are ubiquitously expressed makes it an active player in many physiological and pathological processes including wound healing, bone turnover, tumorigenesis, inflammation and ischemia. Therefore, manipulation of plasma Osteopontin levels may be useful in the treatment of autoimmune diseases, cancer metastasis, osteoporosis and some forms of stress.

### Product Info

**Amount :** 10 µg / 50 µg  
**Content :** Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.2.  
**Storage condition :** Lyophilized protein should be stored at -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at -20°C for 3 months.  
**Amino Acid :** IPVKQADSGSSEEKQLYNKYPDAVATWLNPDPSQKQNLAPQNAVSSSEETNDFKQETLPSKSNESHDMDDM DDEDDDDHVDSQDSIDSNSDDVDDTDDSHQSDSHHSDSDELVDFPTDLPATEVFTPVVPTVDTYDGR GDSVVYGLRSKSKKFRPPDIQYPDATDEDITSHMESEELNGAYKAIPVAQDLNAPSDWDSRGKDSYETSQLDD QSAETHSHKQSRLYKRKANDESNEHSDVIDSQELSKVSREFHSHEFHSHEDMLVVDPKSKEEDKHLKFRISHEL DSASSEVNVDDHHHHHH

### Application Note

Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Dissolve the lyophilized protein in ddH<sub>2</sub>O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

**Endotoxin :** Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.