

Datasheet for ABIN1097266

Osteopontin Protein (AA 17-314) (His tag)



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Overview

Quantity:	50 µg
Target:	Osteopontin (SPP1)
Protein Characteristics:	AA 17-314
Origin:	Human
Source:	Human Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Osteopontin protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human Secreted Phosphoprotein 1/SPP1 /SPP1 (C-6His)
Sequence:	IPVKQADSGS SEEKQLYNKY PDAVATWLNP DPSQKQNLLA PQNAVSSEET NDFKQETLPS KSNESH DHMD DMDDDDDDH VDSQDSIDSN DSDDVDDTDD SHQSDSHHS DESDELVTDF PTDLPATEVF TPVVPTVDY DGRGDSVYVG LRSKSKKFRR PDIQYPDATD EDITSHMESE ELNGAYKAIP VAQDLNAPSD WDSRGKDSYE TSQDDQSAE TSHKQSRLY KRKANDESNE HSDVIDSQEL SKVSREFHSH EFHSHEDMLV VDPKSKEEDK HLKFRISHL DSASSEVNVD HHHHHH
Characteristics:	Recombinant Human Secreted Phosphoprotein 1/SPP1 produced by transfected human cells is a secreted protein with sequence (Ile17-Asn314) of Human SPP1 fused with a polyhistidine tag at the C-terminus.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Sterility:	0.2 µm filtered

Product Details

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

Target Details

Target: Osteopontin (SPP1)

Alternative Name: spp-1 ([SPP1 Products](#))

Sub Type: Fusionprotein

Background: 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), enamel (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.

Alternative Names: Osteopontin, Bone Sialoprotein 1, Nephropontin, Secreted Phosphoprotein 1, SPP-1, Urinary Stone Protein, Uropontin, SPP1, BNSP, OPN

Molecular Weight: 34.75 kDa

UniProt: [P10451](#)

Pathways: [Regulation of Cell Size](#)

Application Details

Restrictions: For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	<p>It is not recommended to reconstitute to a concentration less than 100 µg/mL.</p> <p>Dissolve the lyophilized protein in ddH₂O.</p> <p>Please aliquot the reconstituted solution to minimize freeze-thaw cycles.</p>
Buffer:	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.2.
Handling Advice:	Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
Storage:	4 °C/-20 °C/-80 °C
Storage Comment:	<p>Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks.</p> <p>Reconstituted protein solution can be stored at 4-7°C for 2-7 days.</p> <p>Aliquots of reconstituted samples are stable at < -20°C for 3 months.</p>
Expiry Date:	3 months