

Active Recombinant Human Secreted Phosphoprotein 1, MlgG2a Fc-tagged

Cat. No. SPP1-121H Lot. No. (See product label)

SPECIFICATION

Product Overview	The extracellular domain of human OPN(AAH07016.1)(Ile17-Asn300) is fused to the N-terminus of the Fc region of mouse IgG2a was expressed in CHO cell.
Species	Human
Source	CHO
ProteinLength	17-300 a.a.
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	Lyophilized from 0.2 µm-filtered solution in PBS.
Bio-activity	Measured by the ability of the immobilized protein to support the adhesion of HEK293 human embryonic kidney cells.
Molecular Mass	58KDa (monomer)
AA Sequence	Ile17-Asn300

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Endotoxin	<0.06 eu/μg="" as="" determined="" by="" lal="" test.="">
Purity	>98%, by SDS-PAGE under reducing conditions
Stability	Stable for at least 1 year after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.
Reconstitution	Reconstitute at 100 μg/ml in sterile PBS.
Warning	Avoid freeze/thaw cycles.

GENE INFORMATION

Gene Name	SPP1 secreted phosphoprotein 1 [Homo sapiens]
Official Symbol	SPP1
Synonyms	SPP1; secreted phosphoprotein 1; BNSP, bone sialoprotein I , OPN, osteopontin; osteopontin; BSPI; early T lymphocyte activation 1; ETA 1; uropontin; nephropontin; osteopontin-C; osteopontin-D; SPP1/CALPHA1 fusion; bone sialoprotein 1; urinary stone protein; early T-lymphocyte activation 1; osteopontin/immunoglobulin alpha 1 heavy chain constant region fusion protein; secreted phosphoprotein 1 (osteopontin, bone sialoprotein I, early T-lymphocyte activation 1); OPN; BNSP; ETA-1; MGC110940;
Gene ID	6696
mRNA Refseq	NM_000582
Protein Refseq	NP_000573

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MIM	166490
UniProt ID	P10451
Chromosome Location	4q22.1
Pathway	Direct p53 effectors, organism-specific biosystem; ECM-receptor interaction, organism-specific biosystem; ECM-receptor interaction, conserved biosystem; Endochondral Ossification, organism-specific biosystem; FGF signaling pathway, organism-specific biosystem; Focal Adhesion, organism-specific biosystem; Focal adhesion, organism-specific biosystem;
Function	cytokine activity; extracellular matrix binding;

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