



Recombinant Human Osteopontin

20150227BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-371
Size:	50 µg
Lot. No.:	According to product label

Sequence

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IPVKQADSGS SEEKQLYNKY PDAVATWLNPF DPSQKQNLLA
PQNAVSSSEET NDFKQETLPS KSNESHDMMD DMDDDDDDDH
VDSQDSIDSN DSDDVDDTDD SHQSDSHHS DESDELVTDF
PTDLPATEVF TPVVPTVDTY DGRGDSVYVG LRSKSKKFRF
PDIQYPDATD EDITSHMESE ELNGAYKAIP VAQDLNAPSD
WDSRGKDSYE TSQLDDQSAE THSHKQSRLY KRKANDESNE
HSDVIDSQEL SKVSREFHSH EFHSHEDMLV VDPKSKEEDK
HLKFRISHEL DSASSEVN
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Scientific Background

Gene-ID (NCBI):	6696
Synonyms:	SPP1; OPN; BNSP; BSPI; ETA-1

Osteopontin is a secreted glycoprotein that functions as a ligand to alphavbeta3 integrin and possibly other receptors. It binds tightly to hydroxyapatite and can act as a structural component of the extracellular mineralized matrix. Osteopontin is initially secreted as a 298 amino acid protein, which is subject to multiple post-translational modifications including glycosylation, phosphorylation, and specific proteolytic cleavages into various smaller molecular weight fragments. Osteopontin is expressed in a wide range of cells and tissues including osteoblasts, various tumor cell lines, and extraosseous cells in the inner ear, brain, kidney, deciduum, placenta and odontoblasts. In addition to its involvement in mineralized matrix formation, Osteopontin can also function as a cytokine that stimulates the release of IFN γ and IL-12, while inhibiting the production of IL-10. Recombinant human Osteopontin is a 298 amino acid protein, which, due to glycosylation, migrates at an apparent molecular weight of 60-65 kDa by SDS-PAGE analysis under reducing conditions.

Database References

Protein RefSeq:	NP_001035147
Uniprot ID:	P10451
mRNA RefSeq:	NM_001040058

Product Specifications

Expressed in	HEK 293 cells
Purity	> 97% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	298
MW:	60-65 kDa

Biological Activity: Determined by its ability to chemoattract human monocytes using a concentration range of 10.0-100.0 ng/ml.



AVOID REPEATED FREEZE AND THAW CYCLES!