

Osteopontin, Human Recombinant, His-tagged

CATALOG NUMBER: COP-635-010P, 10 µg

Synonyms Secreted Phosphoprotein-1, OPN, BNSP, BSPI, ETA-1, MGC110940, SPP-1, Osteopontin, Bone sialoprotein 1, Urinary stone protein, Nephropontin, Uropontin, SPP1.

Introduction Osteopontin is a glycoprotein that was first identified in osteoblasts and is involved in bone remodeling, immune functions in fibroblasts, macrophages, and lymphocytes during inflammation and wound healing. SPP1 binds tightly to hydroxyapatite. SPP1 forms an integral part of the mineralized matrix. SPP1 is vital to cell-matrix interaction. Secreted Phosphoprotein-1 protects against cardiac ischemia-reperfusion injury via late preconditioning. Expression of both Osteopontin and CD44 in hepatocellular carcinoma is linked with advanced tumor stage and contributes to prognosis information. SPP1 is the most over-expressed gene in intrahepatic cholangiocarcinoma. Secreted Phosphoprotein-1 overexpression is related with interstitial lung diseases.

Description Secreted Phosphoprotein-1 Human Recombinant produced in *E. coli* is single, a non-glycosylated, Polypeptide chain containing 321 amino acids fragment (17-314) and having a total molecular mass of 36.2 kDa. The SPP1 protein is fused to 20 amino acid His-Tag at N-terminus and purified by proprietary chromatographic techniques.

Source *Escherichia coli*.

Amino Acid Sequence MGSSHHHHHH SSGLVPRGSH RSMIPVKQAD SGSSEEKQLY NKYPDAVATW
LNPDPQSQKQN LLAPQNAVSS EETNDFKQET LPSKSNESHDMDDMDDDD
DDHVDSQDSI DSNDSDDVDD TDDSHQSDES HHSDESDELV TDFPTDLPAT
EVFTPVVPTV DTYDGRGDSV VYGLRSKSKK FRRPDIQYPD ATDEDITSHM
ESEELNGAYK AIPVAQDLNA PSDWDSRGKD SYETSQLDDQ SAETHSHKQS
RLYKRKANDE SNEHSDVIDS QELSKVSREF HSHEFHSHED MLVVDPKSKE
EDKHLKFRIS HELDSASSEV N

Formulation Osteopontin is supplied in 20mM Tris-HCL buffer pH-7.5, 1mM DTT, 2mM EDTA and 10% glycerol.

Storage Store at 4°C if the entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer period of time. Please avoid freeze-thaw cycles.

Purity Greater than 90% as determined by SDS-PAGE.