



Osteopontin (Secreted Phosphoprotein-1), His Tag, human recombinant

Catalog No: 97237
Lot No: XXXXX
Source: *E. coli*
Synonyms: Secreted Phosphoprotein-1, OPN, BNSP, BSPI, ETA-1, MGC110940, SPP-1, Osteopontin, Bone sialoprotein 1, Urinary stone protein, Nephropontin, Uropontin, SPP1

Background

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 (17-314) and having a total molecular mass of 36.2 kDa (molecular weight on SDS-PAGE will shift up). The SPP1 protein is fused to 20 amino acid His Tag at N-terminus and purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered clear colorless solution.

Formulation

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

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 90.0% as determined by SDS-PAGE.

Amino Acid Sequence

MGSSHHHHHH SSSLVPRGSH RSMIPVKQAD SGSSEEKQLY NKYPDAVATW LNPDPSPQKQN LLAPQNAVSS EETNDFKQET
LPSKSNESHDMDDMDEDD DDHVDSQDSI DSNDSDDVDD TDDSHQSDES HHSDESDELV TDFPTDLPAT EVFTPVVPTV
DTYDGRGDSV VYGLRSKSKK FRRPDIQYPD ATDEDITSHM ESEELNGAYK AIPVAQDLNA PSDWDSRGKD SYETSQLDDQ
SAETHSHKQS RLYKRKANDE SNEHSDVIDS QELSKVSREF HSHEFHSHED MLVVDPKSKE EDKHLKFRIS HELDSASSEV N

Usage

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