
Product Data Sheet

Product Name: SPP1 Human, Active

Cat. No.: GP26076

Batch No.: 1

Product Data

Purity >98% Source Escherichia Coli.

Physical Appearance solid Shipping Condition withIcePacks

Synonyms OPN, SPP-1, BNSP, BSPI, ETA-1, Bone sialoprotein 1, BSP I.Early T lymphocyte activation 1, ETA 1, ETA1, MGC110940, Nephropontin, Secreted phosphoprotein 1, SPP 1, SPP1, urinary stone protein, uropontin.

Amino Acid Sequence MGSSHHHHHH SGLVPRGSH RSMIPVKQAD SGSSEEKQLY NKYPDAVATW LNPDPKQKQN LLAPQNAVSS EETNDFKQET LPSKSNESHDMDDMDEDD DDHVDSQDSI DSNDSDDDVDD TDDSHQSDS HHSDESDELV TDFPTDLPAT EVFTPVVPTV DTYDGRGDSV VYGLRSKSKK FRRPDIQYPD ATDEDITSHM ESEELNGAYK AIPVAQDLNA PSDWDSRGKD SYETSQDDQ SAETHSHKQS RLYKRKANDE SNEHSDVIDS QELSKVSREF HSHEFHSHED MLVVDPKSKE EDKHLKFRIS HELDSASSEV N.

Formulation The SPP1 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 7.5), 1mM DTT, 10% glycerol and 2mM EDTA.

Introduction

Osteopontin is a glycoprotein that was primarily found in osteoblasts and takes part in bone remodeling, immune functions in fibroblasts, macrophages, & lymphocytes during inflammation and wound healing. SPP1 highly binds 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 through late preconditioning. Expression of Osteopontin and CD44 in hepatocellular carcinoma is linked to advanced tumor stage & leads to prognosis information. SPP1 is the most over-expressed gene in intrahepatic cholangiocarcinoma. Secreted Phosphoprotein-1 overexpression is related with interstitial lung diseases.

Biological Activity

Caution: Product has not been fully validated for medical applications. For research use only.

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Measured by the ability of the immobilized protein to support the adhesion of HEK293 human embryonic kidney cells. When cells are added to OPN coated plates 10ug/ml. This effect is more to 40%.

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.

Background

SPP1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 321 amino acids (17-314 a.a.) and having a molecular mass of 36.2kDa. SPP1 is fused to a 23 amino acid His tag at N-Terminus and purified by proprietary chromatographic techniques.

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