



Osteopontin, His Tag, HEK, human recombinant (rHuSPP1-His-HEK)

Catalog No: 97554
Lot No: XXXXX
Source: HEK293
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

Osteopontin human recombinant is a single, glycosylated, polypeptide chain produced in HEK293 cells (full length protein, amino acids 17-314) fused with a polyhistidine tag at the C-terminus, having a total calculated molecular mass of 34.5 kDa (The actual molecular mass may be approximately 60-65 kDa in SDS-PAGE under reducing conditions due to glycosylation). Osteopontin is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Osteopontin was lyophilized from a 0.2µM filtered solution of 20mM PBS and 150mM NaCl, pH 7.2.

Solubility

It is recommended to reconstitute the lyophilized SPP1 in 1xPBS to a concentration no less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

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. Please avoid freeze thaw cycles.

Purity

Greater than 95.0% as determined by SDS-PAGE.

Amino Acid Sequence

IPVKQADSGS SEEKQLYNKY PDAVATWLNPDPSQKQNLLA PQNAVSSEET NDFKQETLPS KSNESHDMMD DMDDEDDDDH
VDSQDSIDSN DSDDVDDTDD SHQSDSHHS DESDELVTDF PTDLPATEVF TPVVPTVDY DGRGDSVYVG LRSKSKKFRF
PDIQYPDATD EDITSHMESE ELNGAYKAIP VAQDLNAPSD WDSRGKDSYE TSQLDDQSAE THSHKQSRLY KRKANDESNE
HSDVIDSQEL SKVSREFHSH EFHSHEDMLV VDPKSKEEDK HLFKFRISHL DSASSEVNHH HHHH

Usage

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