

RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human Osteopontin

Catalog No. Source 228-11454 Escherichia Coli

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 Ostepontin 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.

Physical Appearance

Sterile Filtered clear colorless solution.

Formulation

Osteopontin is supplied in 20mM Tris-HCL buffer pH-7.5, 1mM DTT, 2mM 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.

Please prevent freeze-thaw cycles.



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Purity

Greater than 90.0% as determined by SDS-PAGE.

Amino acid sequence

MGSSHHHHHH	SSGLVPRGSH	RSMIPVKQAD	SGSSEEKQLY	NKYPDAVATW
LNPDPSQKQN	LLAPQNAVSS	EETNDFKQET	LPSKSNESHD	HMDDMDDEDD
DDHVDSQDSI	DSNDSDDVDD	TDDSHQSDES	HHSDESDELV	TDFPTDLPAT
EVFTPVVPTV	DTYDGRGDSV	VYGLRSKSKK	FRRPDIQYPD	ATDEDITSHM
ESEELNGAYK	AIPVAQDLNA	PSDWDSRGKD	SYETSQLDDQ	SAETHSHKQS
RLYKRKANDE	SNEHSDVIDS	QELSKVSREF	HSHEFHSHED	MLVVDPKSKE
EDKHLKFRIS	HELDSASSEV	N.		