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SPARC Human

Secreted Protein Acidic & Rich in Cysteine Recombinant Human
RCP2213

Product Overview

Name	SPARC Human

Description

Secreted Protein Acidic & Rich in Cysteine Recombinant Human

Accession (Primary)	P09486

Synonyms

Osteonectin, ON, Basement-membrane protein 40, BM-40, SPARC, Secreted Protein acidic and Rich in Cysteine.

Introduction

SPARC, an acronym for “secreted protein, acidic and rich in cysteine”, is also known as osteonectin or BM-40. It is the founding member of a family of secreted matricellular proteins with similar domain structure. The 303 amino acid, 43 kDa protein contains a 17 aa signal sequence, an N-terminal acidic region that binds calcium, a follistatin domain containing Kazal-like sequences, and a C-terminal extracellular calcium (EC) binding domain with two EF-hand motifs. SPARC is produced by fibroblasts, capillary endothelial cells, platelets and macrophages, especially in areas of tissue morphogenesis and remodeling. SPARC shows context-specific effects, but generally inhibits adhesion, spreading and proliferation, and promotes collagen matrix formation. For endothelial cells, SPARC disrupts focal adhesions and binds and sequesters PDGF and VEGF. SPARC is abundantly expressed in bone, where it promotes osteoblast differentiation and inhibits adipogenesis.

Source

Escherichia Coli.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Stability

Lyophilized SPARC although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Secreted Protein Acidic & Rich in Cysteine should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles .

Purity

Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

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Amino acid sequence

APQQEALPDE TEVVEETVAE VTEVSVGANP VQVEVGEFDD GAEETEEEVV AENPCQNHHC KHGKVCELDE NNTPMCVCQD PTSCPAPIGE FEKVCSNDNK TFDSSCHFFA TKCTLEGTKK GHKLHLDYIG PCKYIPPCLD SELTEFPLRM RDWLKNVLVT LYERDEDNNL LTEKQKLRVK KIHENEKRLE AGDHPVELLA RDFEKNYNMY IFPVHWQFGQ LDQHPIDGYL SHTELAPLRA PLIPMEHCTT RFFETCDLDN DKYIALDEWA GCFGIKQKDI DKDLVI.

Biological Activity

Solubility

It is recommended to reconstitute the lyophilized SPARC in sterile 18MΩ-cm H 2 O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Precautions

SPARC Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P09486)