9051 Mira Mesa Blvd, #910094
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SPARC Human, His

Secreted Protein acidic & Rich in Cysteine Human Recombinant, His Tag
RCP2214

Product Overview

Name	SPARC Human, His
Description	
Secreted Protein acidic & Rich in Cysteine Human Recombinant, His Tag	
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	
The SPARC (1 mg/ml) was lyophilized after extensive dialyses against 20mM PBS pH-7.4.	
Stability	
Lyophilized Osteonectin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution BM-40 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.	
Purity	
Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.	

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Amino acid sequence

MSYYHHHHHH PQQEALPDETEVVEETVAEVTEVSVGANPVQVEVGEFD

DGAEETEEEVVAENPCQNHHCKHGKVCELDENNTPMCVCQDPTSCP

APIGEFEKVCSNDNKTFDSSCHFFATKCTLEGTKKGHKLHLDYIGPCK

YIPPCLDSELTEFPLRMRDWLKNVLVTLYERDEDNNLLTKQKLRVKKI

HENEKRLEAGDHPVELLARDFEKNYNMYIFPVHWQFGQLDQHPIDGY

LSHTELAPLRAPLIPMEHCTTRFFETCDLDNDKYIALDEWAGCFGIKQK DIDKDLVI.

Solubility

It is recommended to reconstitute the lyophilized SPARC in sterile 18MΩ-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Precautions

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

Target Information: (P09486)