

## SPARC Protein, Human, Recombinant (His)

### General Information

Synonyms:	BM-40;ON;SPARC;secreted protein, acidic, cysteine-rich (osteonectin)
Protein Construction:	Ala18-Ile303
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P09486
Molecular Weight:	33.8 kDa (Predicted); 40-50 kDa (Due to glycosylation)

### QC Testing

Biological Activity:	Immobilized Human SPARC, His Tag at 0.5 µg/ml (100 µl/well) on the plate. Dose response curve for Anti-SPARC Antibody, hFc Tag with the EC50 of 0.10 µg/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

*Actual storage temperature shall be subject to the COA.*

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Secreted protein acidic and rich in cysteine (SPARC/osteonectin/BM40) is one of the most abundant non-collagenous protein expressed in mineralized tissues. The capacity of SPARC to influence pathways involved in extracellular matrix assembly such as procollagen processing and collagen fibril formation as well as the capacity to influence osteoblast differentiation and osteoclast activity will be addressed.

### Reference

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