

SPARC Protein, Human

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| Cat. No.: | HY-P7291 |
| Synonyms: | rHuSPARC; BM-40; Osteonectin |
| Species: | Human |
| Source: | E. coli |
| Accession: | P09486 (A18-I303) |
| Gene ID: | 6678 |
| Molecular Weight: | Approximately 36.1 kDa |

PROPERTIES

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| AA Sequence | <pre> A P Q Q E A L P D E T E V V E E T V A E V T E V S V G A N P V Q V E V G E F D D G A E E T E E E V V A E N P C Q N H H C K H G K V C E L D E N N T P M C V C Q D P T S C P A P I G E F E K V C S N D N K T F D S S C H F F A T K C T L E G T K K G H K L H L D Y I G P C K Y I P P C L D S E L T E F P L R M R D W L K N V L V T L Y E R D E D N N L L T E K Q K L R V K K I H E N E K R L E A G D H P V E L L A R D F E K N Y N M Y I F P V H W Q F G Q L D Q H P I D G Y L S H T E L A P L R A P L I P M E H C T T R F F E T C D L D N D K Y I A L D E W A G C F G I K Q K D I D K D L V I </pre> |
| Biological Activity | The ED ₅₀ is <3.0 µg/mL as measured by its ability to inhibit the cell growth of Mv1Lu mink lung epithelial cells, corresponding to a specific activity of >333 units/mg. |
| Appearance | Lyophilized powder. |
| Formulation | Lyophilized after extensive dialysis against PBS, pH 7.4. |
| Endotoxin Level | <1 EU/µg, determined by LAL method. |
| Reconstitution | It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose). |
| Storage & Stability | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. |
| Shipping | Room temperature in continental US; may vary elsewhere. |

DESCRIPTION

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| Background | SPARC (secreted protein, acidic and rich in cysteine) is the founding member of a family of secreted matricellular proteins |
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with similar domain structure. 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^{[1][2]}.

REFERENCES

[1]. Sage H, et al. SPARC, a secreted protein associated with cellular proliferation, inhibits cell spreading in vitro and exhibits Ca²⁺-dependent binding to the extracellular matrix. *J Cell Biol.* 1989 Jul;109(1):341-56.

[2]. Alford AI, et al. Matricellular proteins: Extracellular modulators of bone development, remodeling, and regeneration. *Bone.* 2006 Jun;38(6):749-57.

Caution: Product has not been fully validated for medical applications. For research use only.

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