

## SPARC Protein, Rat (HEK293, His)

<b>Cat. No.:</b>	HY-P73420
<b>Synonyms:</b>	SPARC; BM-40; Osteonectin; ON; Secreted Protein Acidic and Rich in Cysteine
<b>Species:</b>	Rat
<b>Source:</b>	HEK293
<b>Accession:</b>	P16975 (A18-I301)
<b>Gene ID:</b>	24791
<b>Molecular Weight:</b>	Approximately 33.8-40 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> A P Q T E A A E E M   V A E E T V V E E T   G L P V G A N P V Q   V E M G E F E E G A E E T V E E V V A E   N P C Q N H H C K H   G K V C E L D E S 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 A 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 G 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 E E W A G C   F G I K E Q D I N K D L V I           </pre>
<b>Biological Activity</b>	Measured by its ability to inhibit the cell growth of Mv-1-Lu mink lung epithelial cells. The ED <sub>50</sub> for this effect is typically 3.581 µg/mL, corresponding to a specific activity is 2.793×10 <sup>2</sup> U/mg.
<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	The SPARC protein is involved in the regulation of cell growth by interacting with the extracellular matrix and cytokines. It
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exhibits binding capabilities for calcium and copper, as well as various components such as different types of collagen, albumin, thrombospondin, PDGF, and cell membranes. Notably, it possesses two calcium binding sites, including an acidic domain that binds 5 to 8 Ca(2+) ions with low affinity, and an EF-hand loop that binds a Ca(2+) ion with high affinity.

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

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