# Active Recombinant Human SPARCL1, His-tagged

**Cat. No.** SPARCL1-89H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant human SPARCL1, Ile17-Phe664, fused with a C-terminal 10-His tag was expressed in Mouse myeloma cell line, NS0-derived |
| **Species** | Human |
| **Source** | Mammalian Cells |
| **ProteinLength** | 17-664 a.a. |
| **Description** | SPARCL1 (Secreted Protein, Acidic and Rich in Cysteineslike 1), also known as hevin, SC1 or MAST9, is a member of the SPARC family of extracellular glycoproteins. SPARCL1 is an antiadhesive protein that is widely expressed in tissues such as brain, heart, lung, muscle and kidney, but not liver. Human SPARCL1 contains a 16 amino acid (aa) signal sequence and a 648 aa mature region with four domains: a 416 aa Nterminal acidic region, a 23 aa follistatinlike domain, a 55 aa kazallike segment and a 48 aa EFhand/calciumbinding domain. SPARCL1 is predicted at 75 kDa, but migrates at ~130 kDa, which has been explained either by disulfidelinked homodimerization or by glycosylation and high acidity. Some truncated forms have been reported. In mouse, a 55 kDa Cterminal fragment is the only form in kidney and represents a portion of SPARCL1 in other tissues. In humans, a 25 kDa form is increased in liver tumors that are encapsulated, while the fulllength form is downregulated in many epithelial cellderived tumors. SPARCL1 inhibits adhesion and spreading on a variety of substrate. It is thought to cause antiadhesive signaling that terminates neuronal migration, consistent with production by glial and neuronal cells during development or in response to trau |

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| | ma. In tonsillar high endothelial venules (HEV), SPARCL1 may induce endothelial cell dissociation, promoting extravasation. SPARCL1 binds collagen; in mice, deletion cau ses dermal collagen fibrils that are smaller in diameter and deficient in decorin. Huma n mature SPARCL1 shares 67%, 69%, 78%, 76%, 72% and 72% aa identity with mou se, rat, equine, canine, porcine and bovine SPARCL1, respectively. The follistatinlike, kazallike and calciumbinding domains of SPARCL1 show 61% aa identity with corres ponding regions of SPARC. |
| **Predicted N Terminal** | Ile17 |
| **Form** | Lyophilized from a 0.2 μm filtered solution in PBS. |
| **Bio-activity** | Measured by its ability to inhibit the cell growth of Mv1Lu mink lung epithelial cells. Schiemann, B.J. et al. (2003) Mol. Biol. Cell. 14:3977.The ED50 for this effect is typically 0.5 - 2.0 ng/mL.Measured by its ability to bind Collagen I with an apparent KD < 5 nM. |
| **Molecular Mass** | Predicted Molecular Mass: 74.9 kDaSDS-PAGE: 135-150 kDa, reducing conditions |
| **Endotoxin** | <0.10 EU per 1 μg of the protein by the LAL method. |
| **Purity** | >90%, by SDS-PAGE under reducing conditions and visualized by silver stain. |
| **Stability** | Avoid repeated freezethaw cycles.12 months from date of receipt, 20 to 70 °C as supplied.1 month, 2 to 8 °C under sterile conditions after recons titution.3 months, 20 to 70 °C under sterile conditions after reconstitu tion. |
| **Reconstitution** | Reconstitute at 100 μg/mL in sterile PBS. |

## GENE INFORMATION

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| **Gene Name** | SPARCL1 SPARC-like 1 (hevin) [ Homo sapiens ] |
| **Official Symbol** | SPARCL1 |
| **Synonyms** | SC1; MAST9; PIG33; MAST 9; SPARC-like protein 1; high endothelial venule protein; proliferation-inducing protein 33 |
| **Gene ID** | 8404 |
| **MIM** | 606041 |
| **Chromosome Location** | 4q22.1 |
| **Function** | calcium ion binding |

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