

Active Recombinant Human SPARCL1, His-tagged

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

SPECIFICATION

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 hev n, SC1 or MAST9, is a member of the SPARC family of extracellular glycoproteins. S PARCL1 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 a cid (aa) signal sequence and a 648 aa mature region with four domains: a 416 aa Nte rmin al acidic region, a 23 aa follistatinlike domain, a 55 aa kazallike segment and a 4 8 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 mous e, 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 cellder ived tumors. SPARCL1 inhibits adhesion and spreading on a variety of substrate. It is thought to cause antiadhesive signaling that terminates neuronal migration, consisten t 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 causes dermal collagen fibrils that are smaller in diameter and deficient in decorin. Human mature SPARCL1 shares 67%, 69%, 78%, 76%, 72% and 72% aa identity with mouse, rat, equine, canine, porcine and bovine SPARCL1, respectively. The follistatinlike, kazallike and calciumbinding domains of SPARCL1 show 61% aa identity with corresponding 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 µg/mL. Measured by its ability to bind Collagen I with an apparent KD < 5 nM.
Molecular Mass	Predicted Molecular Mass: 74.9 kDa SDS-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 freeze-thaw cycles. 12 months from date of receipt, 20 to 70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, 20 to 70 °C under sterile conditions after reconstitution.
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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