Data Sheet (Cat.No.TMPY-00090)

TargetMol

SPARCL1 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	Sc1;SPARC like 1;mast9;hevin;Ecm2
Protein Construction:	A DNA sequence encoding the mouse Sparcl1 (NP_034227.3) (Tyr368-Phe650) was expressed with a polyhistidine tag at the N-terminus. Predicted N terminal: His
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	P70663
Molecular Weight:	34.8 kDa (predicted)

QC Testing

Biological Activity:	Measured by its ability to inhibit the cell growth of Mv-1-Lu mink lung epithelial cells. The ED50 for this effect is typically 1-4 μg/mL.
Purity:	> 90 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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

SPARC-like protein 1 (SPARCL1; also known as SC1, high endothelial venule protein, or hevin) is an extracellular matrix-associated, secreted glycoprotein belonging to the secreted protein acidic and rich in cysteine (SPARC) family of matricellular proteins. It contains three conserved structural domains that are implicated in the regulation of cell adhesion, migration, and proliferation. SPARCL1 is expressed during embryogenesis and tissue remodeling and is especially prominent in brain and vasculature. Its down-regulation in a number of cancers and

the possibility of its functional compensation by SPARC has led to recent interest in hevin as a tumor suppressor and regulator of angiogenesis. SPARCL1 has antiadhesive properties, and loss of SPARCL1 expression is associated with increased proliferative activity and cell cycle progression. It is suggested that it may influence multiple cellular processes during distinct stages of brain development and function. Besides, SPARCL1 can influence the function of astroglial cells in the developing and mature central nervous system (CNS).

Reference

Sullivan MM,et al.(2004) Hevin/SC1, a matricellular glycoprotein and potential tumor-suppressor of the SPARC/BM-40/Osteonectin family. Int J Biochem Cell Biol. 36(6): 991-6.

Esposito I,et al.(2007) Tumor-suppressor function of SPARC-like protein 1/Hevin in pancreatic cancer. Neoplasia. 9 (1): 8-17.

Weimer JM,et al.(2008) A BAC transgenic mouse model to analyze the function of astroglial SPARCL1 (SC1) in the central nervous system. Glia. 56(9): 935-41.

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