Mouse SPARC-like 1/SPARCL1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2836

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse SPARC-like 1 in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human SPARC-like 1 is observed and less than 1% cross-reactivity with recombinant mouse SPARC is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse SPARC-like 1/SPARCL1 (R&D Systems, Catalog # 4547-SL) Ile17-Phe650 Accession # P70663
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse SPARC-like 1/SPARCL1 (Catalog # 4547-SL)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and 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. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

SPARCL1 (Secreted Protein, Acidic and Rich in Cysteines-like 1), also known as hevin, SC1 or MAST9, is a member of the SPARC family of extracellular glycoproteins (1, 2). SPARCL1 is an anti-adhesive protein that is widely expressed in tissues such as brain, heart, lung, muscle and kidney, but not liver (3, 4). Mouse SPARCL1 contains a 16 amino acid (aa) signal sequence and a 634 aa mature region that contains four domains: a 403 aa N-terminal acidic region, a 23 aa follistatin-like domain, a 55 aa kazal-like segment and a 148 aa calcium binding domain that contains two EF hand motifs (3, 4). Mouse mature SPARCL1 shares 89%, 67%, 63%, 61%, 60%, and 58% aa identity with rat, human, equine, canine, porcine, and bovine SPARCL1, respectively. The follistatin-like, kazal-like and calcium-binding domains of SPARCL1 show 61% aa identity with corresponding regions of SPARC. SPARCL1 is predicted at 75 kDa, but migrates at ~130 kDa, which has been explained either by disulfide-linked homodimerization or by glycosylation and high acidity (3 - 5). Some truncated forms have been reported. In mouse, a 55 kDa C-terminal fragment is the only form in kidney and represent a portion of SPARCL1 in other tissues (6). In humans, a 25 kDa form is increased in liver tumors that are encapsulated, while the full-length form is downregulated in many epithelial cell-derived tumors (7, 8). SPARCL1 inhibits adhesion and spreading on a variety of substrates (5, 9). 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 trauma (10). In tonsillar high endothelial venules (HEV), SPARCL1 may induce endothelial cell dissociation, promoting extravasation (3). SPARCL1 binds collagen; in mice, deletion causes dermal collagen fibrils that are smaller in diameter and deficient in decorin (6, 11).

References:

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Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449