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SDC1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1901a

Specification

SDC1 Antibody - Product Information

Application	**E, WB, IF, FC, IHC**
Primary Accession	P18827
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**32.5kDa KDa**

Description
The protein encoded by this gene is a transmembrane (type I) heparan sulfate proteoglycan and is a member of the syndecan proteoglycan family. The syndecans mediate cell binding, cell signaling, and cytoskeletal organization and syndecan receptors are required for internalization of the HIV-1 tat protein. The syndecan-1 protein functions as an integral membrane protein and participates in cell proliferation, cell migration and cell-matrix interactions via its receptor for extracellular matrix proteins. Altered syndecan-1 expression has been detected in several different tumor types. While several transcript variants may exist for this gene, the full-length natures of only two have been described to date. These two represent the major variants of this gene and encode the same protein.

Immunogen
Purified recombinant fragment of human SDC1 (AA: 28-171) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide.

SDC1 Antibody - Additional Information

Gene ID 6382

Other Names
Syndecan-1, SYND1, CD138, SDC1, SDC

Dilution
E~~1/10000
WB~~1/500 - 1/2000
IF~~1/200 - 1/1000
FC~~1/200 - 1/400
IHC~~1/200 - 1/1000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SDC1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SDC1 Antibody - Protein Information

Name SDC1 (HGNC:10658)

Synonyms SDC

Function
Cell surface proteoglycan that contains both heparan sulfate and chondroitin sulfate and that links the cytoskeleton to the interstitial matrix (By similarity). Regulates exosome biogenesis in concert with SDCBP and PDCD6IP (PubMed:22660413). Able to induce its own expression in dental mesenchymal cells and also in the neighboring dental epithelial cells via an MSX1-mediated pathway (By similarity).

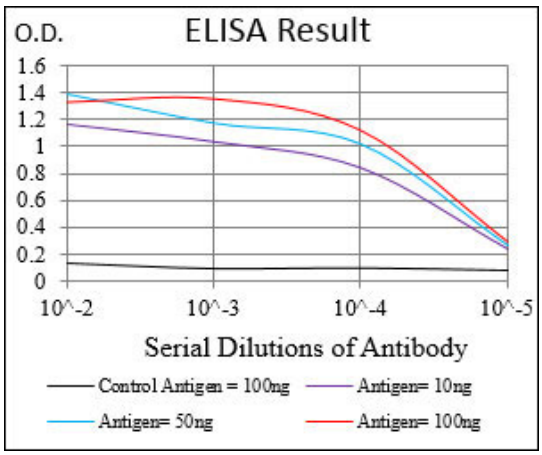
Cellular Location
Membrane; Single-pass type I membrane protein. Secreted Secreted, extracellular exosome Note=Shedding of the ectodomain produces a soluble form

Tissue Location
Detected in placenta (at protein level) (PubMed:32337544). Detected in fibroblasts (at protein level) (PubMed:36213313).

SDC1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



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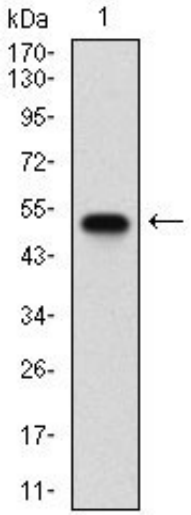

Figure 1: Western blot analysis using SDC1 mAb against human SDC1 (AA: 28-171) recombinant protein. (Expected MW is 44.4 kDa)

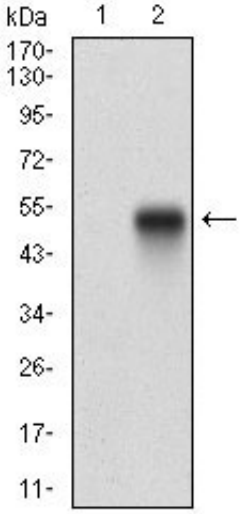

Figure 2: Western blot analysis using SDC1 mAb against HEK293 (1) and SDC1 (AA: 28-171)-hIgGFc transfected HEK293 (2) cell lysate.

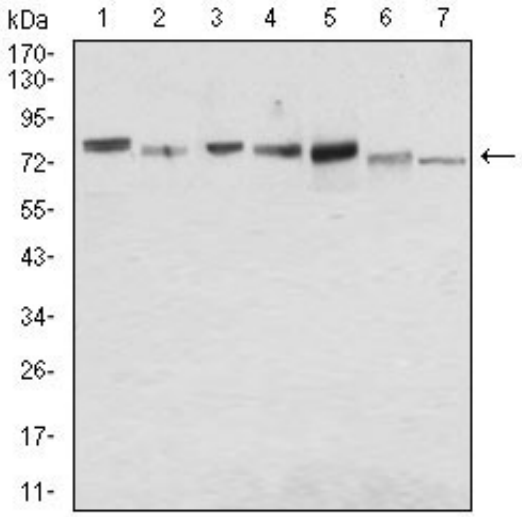

Figure 3: Western blot analysis using SDC1 mouse mAb against MCF-7 (1), Hela (2), HepG2 (3), T47D (4), SW620 (5), Jurkat (6) and NIH/3T3 (7) cell lysate.

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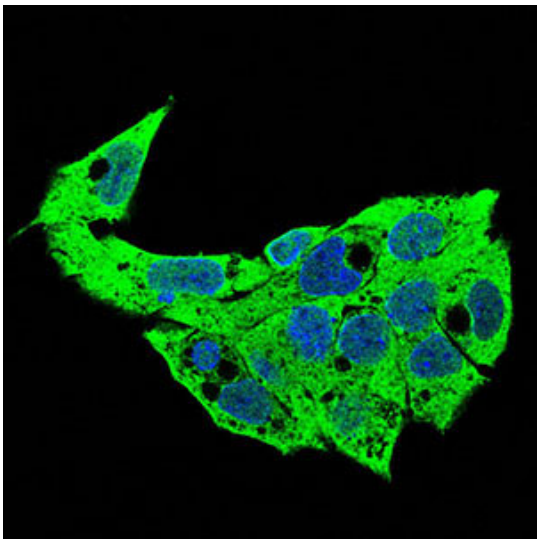

Figure 4: Immunofluorescence analysis of HepG2 cells using SDC1 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Secondary antibody from Fisher (Cat#: 35503)

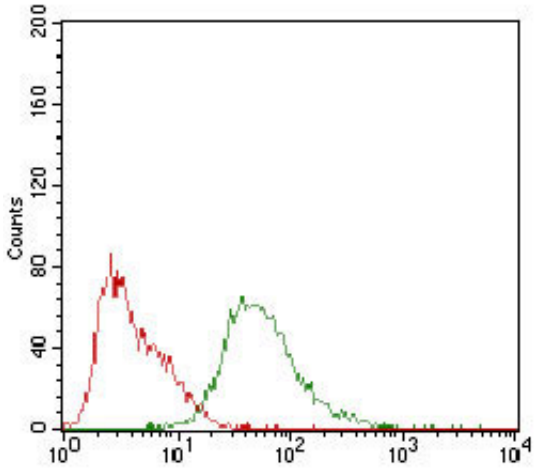

Figure 5: Flow cytometric analysis of HepG2 cells using SDC1 mouse mAb (green) and negative control (red).

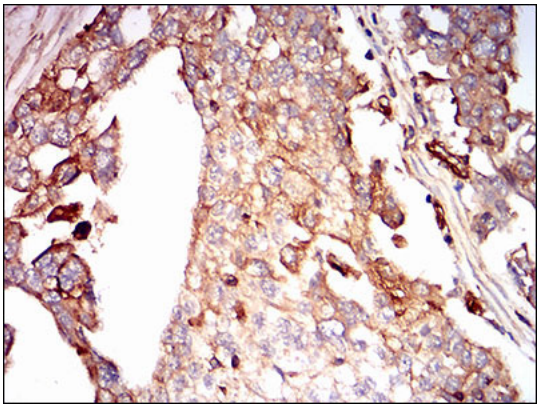

Figure 6: Immunohistochemical analysis of paraffin-embedded ovarian cancer tissues using SDC1 mouse mAb with DAB staining.

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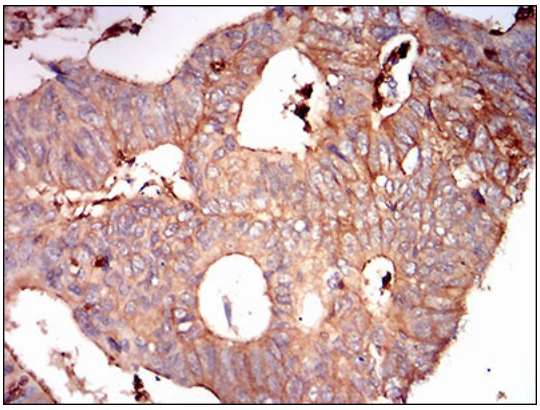

Figure 7: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using SDC1 mouse mAb with DAB staining.

SDC1 Antibody - Background

The multi-pass membrane protein encoded by this gene belongs to the G-protein coupled receptor 3 family and GABA-B receptor subfamily. The GABA-B receptors inhibit neuronal activity through G protein-coupled second-messenger systems, which regulate the release of neurotransmitters, and the activity of ion channels and adenylyl cyclase. This receptor subunit forms an active heterodimeric complex with GABA-B receptor subunit 1, neither of which is effective on its own. Allelic variants of this gene have been associated with nicotine dependence. ; ;

SDC1 Antibody - References

1. Am J Clin Pathol. 2012 Mar;137(3):423-8. 2. PLoS One. 2011;6(9):e25252.