abcam

ab234160

Anti-Syndecan-1 antibody [MI15]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.0975% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing SDC1 protein. The exact immunogen used to generate this antibody is proprietary information. Database link P18827
Clone number	MI15
Purification technique	Affinity purification Protein A
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from hybridoma culture supernatant. Purity is >95% by SDS-PAGE.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1-4 µg/mL
Notes	-

Target data

See full target information SDC1

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).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Syndecan-1 also known as CD138 is a transmembrane heparan sulfate proteoglycan with a molecular weight of approximately 30 to 80 kDa. The size variation arises from differences in its glycosaminoglycan chains. This protein resides predominantly on the surface of epithelial cells and plasma cells. Researchers commonly use the CD138 marker to identify these cells in biological samples. It plays a significant role in cell-cell and cell-matrix interactions acting as a co-receptor for a variety of growth factors cytokines and extracellular matrix proteins.
Biological function summary	Syndecan-1 participates in tissue repair inflammation and cell signaling ensuring epithelial integrity and communication. Syndecan-1 influences cell behavior by interacting with other components of the extracellular matrix and different membrane receptors. It is also involved in forming and regulating proteoglycan complexes at the cell surface. These complex interactions facilitate the modulation of cell proliferation migration and differentiation which are fundamental to maintaining tissue architecture and function.

Pathways	Syndecan-1 actively contributes to both the Wnt and FGF signaling pathways. Through its interaction with proteins such as miR-15 syndecan-1 modulates cellular responses essential for developmental processes and tissue homeostasis. The connection with these pathways allows syndecan-1 to integrate and relay extracellular signals impacting gene expression and cellular behavior. Its relationship with other proteins like A38 as a co-receptor emphasizes its role in finely tuning signaling cascades within cellular environments.
Associated diseases and disorders	Syndecan-1 shows a connection to multiple myeloma and breast cancer. The overexpression of syndecan-1 in these conditions disrupts normal cellular functions and promotes tumorigenesis by aiding in the tumor cell's adhesion migration and invasion. Its interaction with proteins such as perCP further demonstrates its role in disease progression providing potential as a therapeutic target. These relationships make syndecan-1 an important focus for research in oncology and other fields of disease study.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

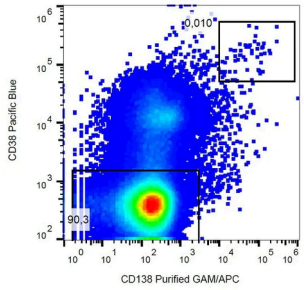
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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1 product image



Flow Cytometry - Anti-Syndecan-1 antibody [MI15] (ab234160)

Syndecan-1 Flow Cytometry staining using mouse Anti-Syndecan-1 antibody

Surface staining of human peripheral blood with ab234160 followed by a Goat anti-mouse-APC conjugated secondary. Gated on lymphocytes and monocytes.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.