abcam

ab130405

Anti-Syndecan-1 antibody [SP152]

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.6 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	SP152
Purification technique	Affinity purification Protein A/G
Concentration	0.018 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS by protein A/G.

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100

Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Flow Cyt

Tested

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	0.2 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	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

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.

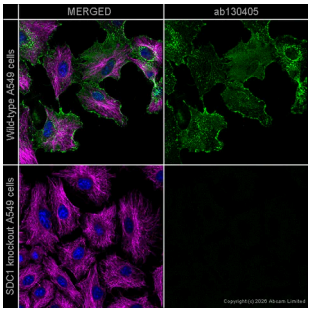
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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

Full details and terms and conditions can be found here:
Terms & Conditions.

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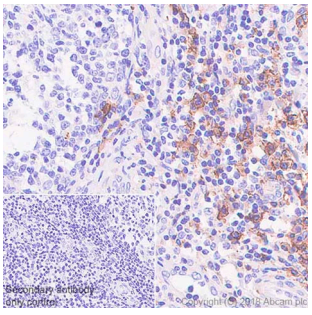
7 product images



Immunocytochemistry/ Immunofluorescence - Anti-Syndecan-1 antibody [SP152] (ab130405)

Syndecan-1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Syndecan-1 antibody

ab130405 staining SDC1 in A549 (positive) and A549-SDC1 KO (negative) cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated for 2 hours at room temperature with ab130405 at 0.2 µg/ml (shown in green) and ab7291, Anti-alpha Tubulin antibody [DM1A] - Loading Control (shown in pseudocolour magenta). Cells were then incubated with ab150081, Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution and ab150120, Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) preadsorbed at 1/1000 dilution for 1 hour at room temperature. Nuclear DNA was labeled with DAPI (shown in blue). Image was acquired with a high-content analyser (Operetta CLS, Revvity) and a maximum intensity projection of confocal sections is shown.

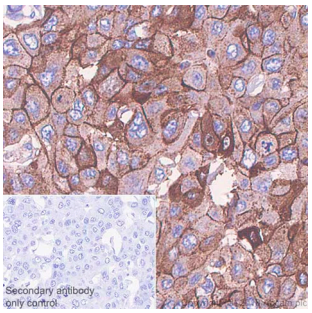


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Syndecan-1 antibody [SP152] (ab130405)

Syndecan-1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human tonsil tissue using rabbit Anti-Syndecan-1 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human tonsil tissue sections labeling Syndecan-1 with ab130405 at 1/100 dilution. Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0,

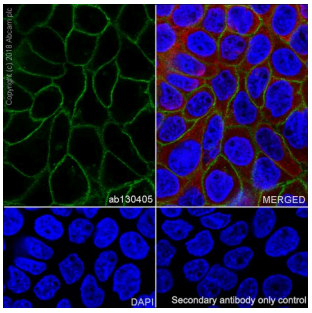
epitope retrieval solution 1) for 10 mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Syndecan-1 antibody [SP152] (ab130405)

Syndecan-1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human hepatocellular carcinoma tissue using rabbit Anti-Syndecan-1 antibody

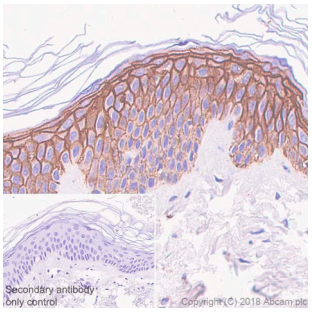
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human hepatocellular carcinoma tissue sections labeling Syndecan-1 with ab130405 at 1/100 dilution. Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10 mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunocytochemistry/ Immunofluorescence - Anti-Syndecan-1 antibody [SP152] (ab130405)

Syndecan-1 Immunocytochemistry/ Immunofluorescence staining of A431 (human epidermoid carcinoma epithelial cell) cells using rabbit Anti-Syndecan-1 antibody

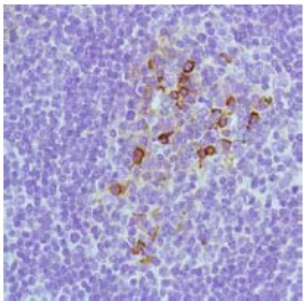
Immunocytochemistry/ Immunofluorescence analysis of A431 (human epidermoid carcinoma epithelial cell) cells labeling Syndecan-1 with purified ab130405 at 1/50. Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200. Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Syndecan-1 antibody [SP152] (ab130405)

Syndecan-1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human skin tissue using rabbit Anti-Syndecan-1 antibody

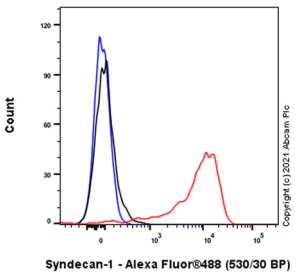
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human skin tissue sections labeling Syndecan-1 with ab130405 at 1/100 dilution. Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10 mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Syndecan-1 antibody [SP152] (ab130405)

Syndecan-1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of human tonsil tissue using rabbit Anti-Syndecan-1 antibody

ab130405, at a dilution of 1/100, staining Syndecan in paraffin-embedded Human tonsil tissue by Immunohistochemistry.



Flow Cytometry - Anti-Syndecan-1 antibody [SP152] (ab130405)

Syndecan-1 Flow Cytometry staining of U266B1 (Human multiple myeloma B lymphocyte) cells using rabbit Anti-Syndecan-1 antibody

Flow Cytometry analysis of U266B1 (Human multiple myeloma B lymphocyte) cells labeling Syndecan-1 with purified ab130405 at 1/1000 dilution (Red). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).
Gated on viable cells.

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