SANTA CRUZ BIOTECHNOLOGY, INC.

Syndecan-1 (A-6): sc-390791

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Syndecan-1 (SYND1), also designated CD138, is a type I integral membrane proteoglycan that contains both chondroitin sulfate and heparan sulfate groups. It is expressed in mouse on pre-B cells, immature B cells and plasma cells. Syndecan-1 is also found on the basolateral surfaces of epithelial cells, endothelial cells of sprouting capillaries and embryonic condensing mesenchymal cells. Syndecan-1 functions as an extracellular matrix receptor which binds to collagens, Fibronectin and thrombospondin. It has been shown to co-localize with Actin-rich filaments and may act to link the cytoskeleton to the extracellular matrix.

CHROMOSOMAL LOCATION

Genetic locus: SDC1 (human) mapping to 2p24.1.

SOURCE

Syndecan-1 (A-6) is a mouse monoclonal antibody raised against amino acids 82-256 of Syndecan-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Syndecan-1 (A-6) is available conjugated to agarose (sc-390791 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390791 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390791 PE), fluorescein (sc-390791 FITC), Alexa Fluor® 488 (sc-390791 AF488), Alexa Fluor® 546 (sc-390791 AF546), Alexa Fluor® 594 (sc-390791 AF594) or Alexa Fluor® 647 (sc-390791 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390791 AF680) or Alexa Fluor® 790 (sc-390791 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Syndecan-1 (A-6) is recommended for detection of Syndecan-1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Syndecan-1 siRNA (h): sc-36587, Syndecan-1 shRNA Plasmid (h): sc-36587-SH and Syndecan-1 shRNA (h) Lentiviral Particles: sc-36587-V.

Molecular Weight of Syndecan-1: 85 kDa.

Positive Controls: Syndecan-1 (h2): 293T Lysate: sc-159118.

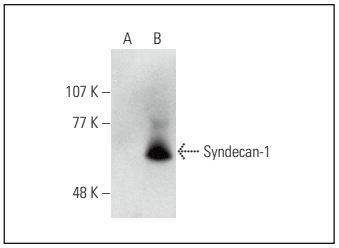
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

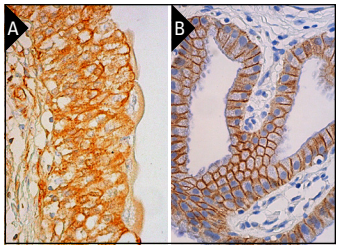
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Syndecan-1 (A-6) HRP: sc-390791 HRP. Direct western blot analysis of Syndecan-1 expression in non-transfected: sc-117752 (**A**) and human Syndecan-1 transfected: sc-159118 (**B**) 293T whole cell lysates.



Syndecan-1 (A-6): sc-390791. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing membrane and cytoplasmic staining of urothelial cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing membrane staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Zeng, Y., et al. 2016. Sphingosine-1-phosphate induced epithelial-mesenchymal transition of hepatocellular carcinoma via an MMP-7/ Syndecan-1/TGF-β autocrine loop. Oncotarget 7: 63324-63337.
2. Šemeláková, M., et al. 2018. The potential of hypericin and hyperforin for antiadhesion therapy to prevent metastasis of parental and oxaliplatin-resistant human adenocarcinoma cells (HT-29). Anticancer Drugs 29: 983-994.
3. Zeng, Y., et al. 2019. Sphingosine 1-phosphate regulates proliferation, cell cycle and apoptosis of hepatocellular carcinoma cells via Syndecan-1. Prog. Biophys. Mol. Biol. 148: 32-38.
4. Arciniegas, E., et al. 2019. Galectin-1 and galectin-3 and their potential binding partners in the dermal thickening of keloid tissues. Am. J. Dermatopathol. 41: 193-204.
5. Li, Y., et al. 2020. Scutellarein inhibits the development of colon cancer via Cdc4-mediated RAGE ubiquitination. Int. J. Mol. Med. 45: 1059-1072.
6. Herman, K., et al. 2021. Single-molecule force spectroscopy reveals structural differences of heparan sulfate chains during binding to vitronectin. Phys. Rev. E 104: 024409.
7. Koliakou, E., et al. 2022. Altered distribution and expression of Syndecan-1 and -4 as an additional hallmark in psoriasis. Int. J. Mol. Sci. 23: 6511.
8. Zhong, L., et al. 2022. Revised International Staging System (R-ISS) stage-dependent analysis uncovers oncogenes and potential immunotherapeutic targets in multiple myeloma (MM). Elife 11: e75340.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.