

# Syndecan-1 (DL-101): sc-12765

## 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; Sdc1 (mouse) mapping to 12 A1.1.

## SOURCE

Syndecan-1 (DL-101) is a mouse monoclonal antibody raised against Syndecan-1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Syndecan-1 (DL-101) is available conjugated to agarose (sc-12765 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-12765 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-12765 PE), fluorescein (sc-12765 FITC), Alexa Fluor<sup>®</sup> 488 (sc-12765 AF488), Alexa Fluor<sup>®</sup> 546 (sc-12765 AF546), Alexa Fluor<sup>®</sup> 594 (sc-12765 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-12765 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-12765 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-12765 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

Syndecan-1 (DL-101) is recommended for detection of the ectodomain of Syndecan-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for Syndecan-1 siRNA (h): sc-36587, Syndecan-1 siRNA (m): sc-36586, Syndecan-1 shRNA Plasmid (h): sc-36587-SH, Syndecan-1 shRNA Plasmid (m): sc-36586-SH, Syndecan-1 shRNA (h) Lentiviral Particles: sc-36587-V and Syndecan-1 shRNA (m) Lentiviral Particles: sc-36586-V.

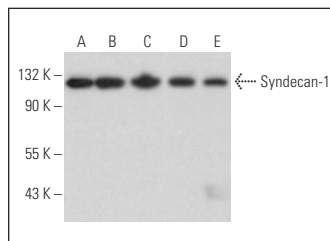
Molecular Weight of Syndecan-1: 85 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

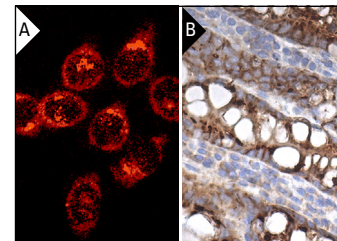
## STORAGE

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

## DATA



Syndecan-1 (DL-101): sc-12765. Western blot analysis of Syndecan-1 expression in Raji (A), HeLa (B), MCF7 (C), Ramos (D) and Hep G2 (E) whole cell lysates.



Syndecan-1 (DL-101): sc-12765. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing membrane and cytoplasmic staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

1. Slimani, H., et al. 2003. Interaction of RANTES with Syndecan-1 and Syndecan-4 expressed by human primary macrophages. *Biochim. Biophys. Acta* 1617: 80-88.
2. Zaragosi, L.E., et al. 2015. Syndecan-1 regulates adipogenesis: new insights in dedifferentiated liposarcoma tumorigenesis. *Carcinogenesis* 36: 32-40.
3. Bengtsson, E., et al. 2016. The leucine-rich repeat protein PRELP binds fibroblast cell-surface proteoglycans and enhances focal adhesion formation. *Biochem. J.* 473: 1153-1164.
4. Urbinati, C., et al. 2017. Syndecan-1 increases B-lymphoid cell extravasation in response to HIV-1 Tat via  $\alpha_v\beta_3$ /pp60src/pp125FAK pathway. *Oncogene* 36: 2609-2618.
5. Leblanc, R., et al. 2018. Autotaxin- $\beta$  interaction with the cell surface via syndecan-4 impacts on cancer cell proliferation and metastasis. *Oncotarget* 9: 33170-33185.
6. Niu, T., et al. 2019. Endomucin restores depleted endothelial glycocalyx in the retinas of streptozotocin-induced diabetic rats. *FASEB J.* 33: 13346-13357.
7. Gkogkou, P., et al. 2020. E-cadherin and Syndecan-1 expression in patients with advanced non-small cell lung cancer treated with chemoradiotherapy. *In Vivo* 34: 453-459.
8. Gunaydin, S., et al. 2021. Comparative effects of single-dose cardioplegic solutions especially in repeated doses during minimally invasive aortic valve surgery. *Innovations* 16: 80-89.

## RESEARCH USE

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