SANTA CRUZ BIOTECHNOLOGY, INC.

Syndecan-1 (H-174): sc-5632

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 colocalize with actin-rich filaments and may act to link the cytoskeleton to the extracellular matrix.

REFERENCES

1. Sanderson, R.D., et al. 1989. B lymphocytes express and lose syndecan at specific stages of differentiation. Cell Regul. 1: 27-35.
2. Bernfield, M., et al. 1992. Biology of the syndecans: a family of transmembrane heparan sulfate proteoglycans. Ann. Rev. Cell Biol. 8: 365-393.

CHROMOSOMAL LOCATION

Genetic locus: SDC1 (human) mapping to 2p24.1; Sdc1 (mouse) mapping to 12 A1.1.

SOURCE

Syndecan-1 (H-174) is a rabbit polyclonal antibody raised against amino acids 82-256 of Syndecan-1 of human origin.

PRODUCTS

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Syndecan-1 (H-174) is recommended for detection 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) 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 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: Syndecan-1 (h2): 293T Lysate: sc-159118, HeLa whole cell lysate: sc-2200 or Raji whole cell lysate: sc-364236.

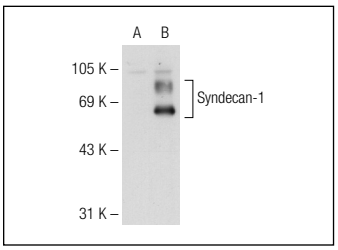
STORAGE

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

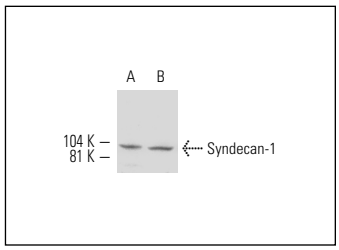
RESEARCH USE

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

DATA



Syndecan-1 (H-174): sc-5632. 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 (H-174): sc-5632. Western blot analysis of Syndecan-1 expression in HeLa (**A**) and Raji (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Sheard, P.W., et al. 2002. Distribution of neurotrophin receptors in the mouse neuromuscular system. Int. J. Dev. Biol. 46: 569-575.
2. Bhattacharyya, S., et al. 2008. Distinct effects of N-acetylgalactosamine-4-sulfatase and galactose-6-sulfatase expression on chondroitin sulfates. J. Biol. Chem. 283: 9523-9530.
3. Edwards, I.J., et al. 2008. *In vivo* and *in vitro* regulation of syndecan 1 in prostate cells by n-3 polyunsaturated fatty acids. J. Biol. Chem. 283: 18441-18449.
4. Huard, B., et al. 2008. APRIL secreted by neutrophils binds to heparan sulfate proteoglycans to create plasma cell niches in human mucosa. J. Clin. Invest. 118: 2887-2895.
5. Sandjeu, Y., et al. 2009. Desmosealin and other components of the epidermal extracellular matrix. J. Physiol. Pharmacol. 60: 23-30.
6. Levy-Adam, F., et al. 2010. Heparanase 2 interacts with heparan sulfate with high affinity and inhibits heparanase activity. J. Biol. Chem. 285: 28010-28019.
7. Chen, K., et al. 2010. Type 2 diabetes in mice induces hepatic overexpression of sulfatase 2, a novel factor that suppresses uptake of remnant lipoproteins. Hepatology 52: 1957-1967.
8. Carulli, S., et al. 2012. Cell surface proteoglycans syndecan-1 and -4 bind overlapping but distinct sites in laminin α3 LG45 protein domain. J. Biol. Chem. 287: 12204-12216.