SANTA CRUZ BIOTECHNOLOGY, INC.

Syndecan-3 (E-19): sc-9495

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Syndecans are type I integral membrane proteoglycans that contain both chondroitin sulfate and heparan sulfate groups. Syndecans are involved in cell-extracellular matrix adhesion and growth factor binding. Syndecan-1 (SYND1, also called CD138) is an extracellular matrix receptor, which binds to collagens, fibronectin and thrombospondin. Syndecan-1 and Syndecan-3 (also designated N-Syndecan) interact with MK (midkine), a growth/differentiation factor invloved in embryogenesis of the central nervous system. Syndecan-2 (also designated fibroglycan) is highly expressed at areas of high morphogenetic activity, such as epithelial-mesenchymal interfaces and the prechondrogenic and preosteogenic mesenchymal condensations. Syndecan-4 (also designated amphiglycan or ryudocan) functions cooperatively with integrins in the processes of cell spreading, focal adhesion assembly and actin stress fiber assembly.

REFERENCES

1. Sanderson, R.D., et al. 1992. Adhesion of B lymphoid (MPC-11) cells to type I collagen is mediated by integral membrane proteoglycan, Syndecan. J. Immunol. 148: 3902-3911.
2. David, G., et al. 1993. Spatial and temporal changes in the expression of fibroglycan (Syndecan-2) during mouse embryonic development. Development 119: 841-854.
3. Salmivirta, M., et al. 1995. Syndecan family of cell surface proteoglycans: developmentally regulated receptors for extracellular effector molecules. Experientia 51: 863-872.
4. Nakanishi, T., et al. 1997. Expression of Syndecan-1 and -3 during embryogenesis of the central nervous system in relation to binding with midkine. J. Biochem. 121: 197-205.
5. Saoncella, S., et al. 1999. Syndecan-4 signals cooperatively with integrins in a Rho-dependent manner in the assembly of focal adhesions and actin stress fibers. Proc. Natl. Acad. Sci. USA 96: 2805-2810.

CHROMOSOMAL LOCATION

Genetic locus: SDC3 (human) mapping to 1p35.2; Sdc3 (mouse) mapping to 4 D2.3.

SOURCE

Syndecan-3 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Syndecan-3 of rat origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-9495 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Syndecan-3 (E-19) is recommended for detection of Syndecan-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Syndecan-3 (E-19) is also recommended for detection of Syndecan-3 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Syndecan-3 siRNA (h): sc-41047, Syndecan-3 siRNA (m): sc-41048, Syndecan-3 shRNA Plasmid (h): sc-41047-SH, Syndecan-3 shRNA Plasmid (m): sc-41048-SH, Syndecan-3 shRNA (h) Lentiviral Particles: sc-41047-V and Syndecan-3 shRNA (m) Lentiviral Particles: sc-41048-V.

Molecular Weight of Syndecan-3: 50-55/120 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812 or A549 cell lysate: sc-2413.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Zong, F., et al. 2010. Effect of syndecan-1 overexpression on mesenchymal tumour cell proliferation with focus on different functional domains. Cell Prolif. 43: 29-40.

RESEARCH USE

For research use only, not for use in diagnostic procedures

PROTOCOLS

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