

Syndecan-2 (F-11): sc-376229

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 involved in embryogenesis of the central nervous system. Syndecan-2 (also designated fibroglycan or HSPG) 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

- 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.
- David, G., et al. 1993. Spatial and temporal changes in the expression of fibroglycan (Syndecan-2) during mouse embryonic development. *Development* 119: 841-854.
- Salmivirta, M., et al. 1995. Syndecan family of cell surface proteoglycans: developmentally regulated receptors for extracellular effector molecules. *Experientia* 51: 863-872.
- 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.
- 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: Sdc2 (mouse) mapping to 15 B3.1.

SOURCE

Syndecan-2 (F-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 59-95 within an N-terminal extracellular domain of Syndecan-2 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-376229 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

Syndecan-2 (F-11) is recommended for detection of Syndecan-2 of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Syndecan-2 siRNA (m): sc-41046, Syndecan-2 shRNA Plasmid (m): sc-41046-SH and Syndecan-2 shRNA (m) Lentiviral Particles: sc-41046-V.

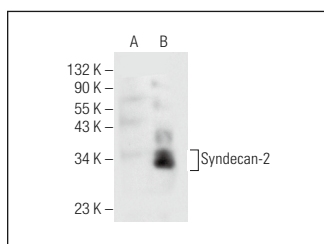
Molecular Weight of Syndecan-2: 22-48 kDa.

Positive Controls: Syndecan-2 (m): 293T Lysate: sc-123870.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Syndecan-2 (F-11): sc-376229. Western blot analysis of Syndecan-2 expression in non-transfected: sc-117752 (A) and mouse Syndecan-2 transfected: sc-123870 (B) 293T whole cell lysates.

STORAGE

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

PROTOCOLS

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