

Syndecan-2 (F-5): sc-376160

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.

CHROMOSOMAL LOCATION

Genetic locus: Sdc2 (mouse) mapping to 15 B3.1.

SOURCE

Syndecan-2 (F-5) 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 IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Syndecan-2 (F-5) is available conjugated to agarose (sc-376160 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376160 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376160 PE), fluorescein (sc-376160 FITC), Alexa Fluor® 488 (sc-376160 AF488), Alexa Fluor® 546 (sc-376160 AF546), Alexa Fluor® 594 (sc-376160 AF594) or Alexa Fluor® 647 (sc-376160 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376160 AF680) or Alexa Fluor® 790 (sc-376160 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376160 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

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

APPLICATIONS

Syndecan-2 (F-5) 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.

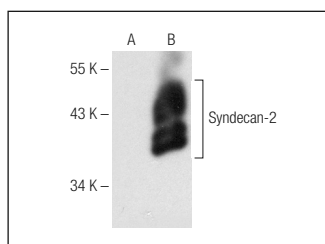
Molecular Weight of Syndecan-2: 22-48 kDa.

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 A/G PLUS-Agarose: sc-2003 (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-5): sc-376160. 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.

SELECT PRODUCT CITATIONS

- Chiu, C.C., et al. 2019. PARK14 (D331Y) PLA2G6 causes early-onset degeneration of *Substantia nigra* dopaminergic neurons by inducing mitochondrial dysfunction, ER stress, mitophagy impairment and transcriptional dysregulation in a knockin mouse model. *Mol. Neurobiol.* 56: 3835-3853.
- Benito-Jardón, M., et al. 2020. αv-class integrin binding to Fibronectin is solely mediated by RGD and unaffected by an RGE mutation. *J. Cell Biol.* 219: e202004198.

RESEARCH USE

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