

Syndecan-3 (G-2): sc-398194

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) 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.

CHROMOSOMAL LOCATION

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

SOURCE

Syndecan-3 (G-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 64-91 within an internal region of Syndecan-3 of rat 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-398194 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Syndecan-3 (G-2) is recommended for detection of Syndecan-3 of mouse, rat and human 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).

Syndecan-3 (G-2) is also recommended for detection of Syndecan-3 in additional species, including equine, canine and bovine.

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.

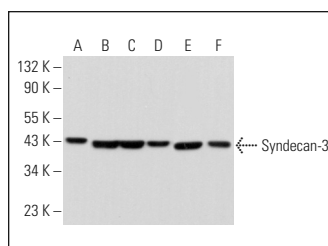
Molecular Weight of Syndecan-3: 50-55/120 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812, RAW 264.7 whole cell lysate: sc-2211 or A549 cell lysate: sc-2413.

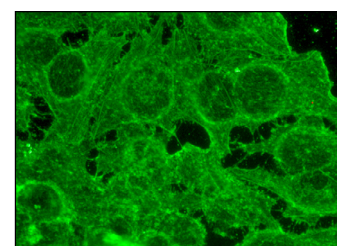
RECOMMENDED SUPPORT REAGENTS

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-3 (G-2): sc-398194. Western blot analysis of Syndecan-3 expression in SH-SY5Y (A), RAW 264.7 (B), C3H/10T1/2 (C), Jurkat (D) and A549 (E) whole cell lysates and human brain tissue extract (F).



Syndecan-3 (G-2): sc-398194. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

- De Micheli, A.J., et al. 2020. Single-cell analysis of the muscle stem cell hierarchy identifies heterotypic communication signals involved in skeletal muscle regeneration. *Cell Rep.* 30: 3583-3595.e5.
- 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.
- Hudák, A., et al. 2022. Syndecan-3 as a novel biomarker in Alzheimer's disease. *Int. J. Mol. Sci.* 23: 3407.

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.

PROTOCOLS

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