

glypican-2 (h3): 293T Lysate: sc-176472

BACKGROUND

Glypican-1 (GPC1), glypican-2 (GPC2) and glypican-3 (GPC3) are members of the glypican family of heparan sulfate proteoglycans, which attach to the cell membrane via a glycosylphosphatidylinositol (GPI) anchor. Cell-surface heparan sulfate proteoglycans participate in molecular events that regulate cell adhesion, migration and proliferation. Glypican-2, a cell surface proteoglycan bearing heparan sulfate, may have a function related to the motile behaviors of developing neurons. Ligation of cell-surface glypican-2 with midkine (MK) or an antibody against epitope-tagged glypican-2 induces cell adhesion and promotes neurite outgrowth. MK binds to heparan sulfate chains of glypican-2 in a manner similar to Syndecan-3, but different localization of epitope-tagged glypican-2 and Syndecan-3 on the surface of N2α cells suggests that they may play different roles in MK-mediated neural function.

REFERENCES

1. Stipp, C.S., et al. 1994. Cerebroglycan: an integral membrane heparan sulfate proteoglycan that is unique to the developing nervous system and expressed specifically during neuronal differentiation. *J. Cell Biol.* 124: 149-160.
2. Li, M., et al. 1997. Expression of OCI-5/glypican-3 during intestinal morphogenesis: regulation by cell shape in intestinal epithelial cells. *Exp. Cell Res.* 235: 3-12.
3. Gonzalez, A.D., et al. 1998. OCI-5/GPC3, a glypican encoded by a gene that is mutated in the Simpson-Golabi-Behmel overgrowth syndrome, induces apoptosis in a cell line-specific manner. *J. Cell Biol.* 141: 1407-1414.
4. Cano-Gauci, D.F., et al. 1999. Glypican-3-deficient mice exhibit developmental overgrowth and some of the abnormalities typical of Simpson-Golabi-Behmel syndrome. *J. Cell Biol.* 146: 255-264.
5. Kurosawa, N., et al. 2001. Glypican-2 binds to midkine: the role of glypican-2 in neuronal cell adhesion and neurite outgrowth. *Glycoconj. J.* 18: 499-507.

CHROMOSOMAL LOCATION

Genetic locus: GPC2 (human) mapping to 7q22.1.

PRODUCT

glypican-2 (h3): 293T Lysate represents a lysate of human glypican-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

glypican-2 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive glypican-2 antibodies. Recommended use: 10-20 µl per lane.

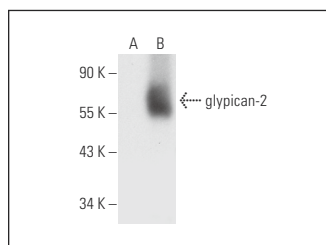
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

glypican-2 (F-5): sc-393824 is recommended as a positive control antibody for Western Blot analysis of enhanced human glypican-2 expression in glypican-2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



glypican-2 (F-5): sc-393824. Western blot analysis of glypican-2 expression in non-transfected: sc-117752 (A) and human glypican-2 transfected: sc-176472 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.