

glypican-3 (C-17): sc-34095

BACKGROUND

Glypican-3 (GPC3) is an integral membrane protein that is mutated in the Simpson-Golabi-Behmel syndrome (SGBS). SGBS is characterized by pre- and post-natal overgrowth and is a recessive X-linked condition. Glypican-3, also designated OCI-5 in rat, is a member of the glypican family of heparan sulfate proteoglycans, which attach to the cell membrane via a glycosyl-phosphatidyl-inositol (GPI) anchor. Expression of glypican-3 is detected in embryonic mesodermal lung, liver and kidney tissues. Glypican-3 is thought to regulate tissue and organ growth through interactions with growth factors such as Insulin-like growth factor II (IGF-II) or fibroblast growth factor 2 (FGF-2). Glypican-3 may be downregulated by various means, including promoter hypermethylation or the repression of specific transcription factors.

REFERENCES

1. Pilia, G., et al. 1996. Mutations in GPC3, a glypican gene, cause the Simpson-Golabi-Behmel overgrowth syndrome. *Nat. Genet.* 12: 241-247.
2. Song, H.H., et al. 1997. OCI-5/rat glypican-3 binds to fibroblast growth factor 2 but not to Insulin-like growth factor 2. *J. Biol. Chem.* 272: 7574-7577.
3. 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.
4. 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.
5. 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.

CHROMOSOMAL LOCATION

Genetic locus: GPC3 (human) mapping to Xq26.1.

SOURCE

glypican-3 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of glypican-3 of human 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-34095 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.

PROTOCOLS

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

APPLICATIONS

glypican-3 (C-17) is recommended for detection of glypican-3 of human origin by Western Blotting (starting dilution 1:200, 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 glypican-3 siRNA (h): sc-40640, glypican-3 shRNA Plasmid (h): sc-40640-SH and glypican-3 shRNA (h) Lentiviral Particles: sc-40640-V.

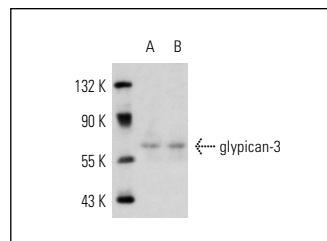
Molecular Weight of glypican-3: 67 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or SH-SY5Y cell lysate: sc-3812.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



glypican-3 (C-17): sc-34095. Western blot analysis of glypican-3 expression in IMR-32 (A) and SH-SY5Y (B) whole cell lysates.

RESEARCH USE

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

MONOS
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Try **glypican-3 (F-3): sc-390587** or **glypican-3 (H-10): sc-377266**, our highly recommended monoclonal alternatives to glypican-3 (C-17). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **glypican-3 (F-3): sc-390587**.