

# glypican-3 (W-18): sc-10455

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: GPC3 (human) mapping to Xq26.2; Gpc3 (mouse) mapping to X A5.

## SOURCE

glypican-3 (W-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-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-10455 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.

## APPLICATIONS

glypican-3 (W-18) is recommended for detection of glypican-3 of mouse, rat and 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).

glypican-3 (W-18) is also recommended for detection of glypican-3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for glypican-3 siRNA (h): sc-40640, glypican-3 siRNA (m): sc-40641, glypican-3 shRNA Plasmid (h): sc-40640-SH, glypican-3 shRNA Plasmid (m): sc-40641-SH, glypican-3 shRNA (h) Lentiviral Particles: sc-40640-V and glypican-3 shRNA (m) Lentiviral Particles: sc-40641-V.

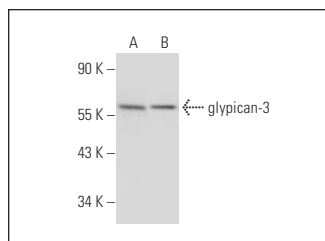
Molecular Weight of glypican-3: 67 kDa.

Positive Controls: mouse stomach tissue extract: sc-394628, SH-SY5Y cell lysate: sc-3812 or IMR-32 cell lysate: sc-2409.

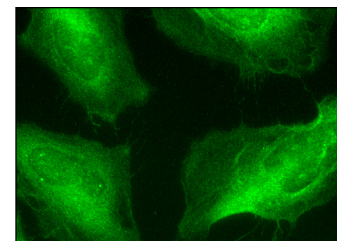
## RECOMMENDED SECONDARY REAGENTS

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 (W-18): sc-10455. Western blot analysis of glypican-3 expression in mouse stomach tissue extract (A) and SH-SY5Y whole cell lysate (B).



glypican-3 (W-18): sc-10455. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

## SELECT PRODUCT CITATIONS

1. Nakatsura, T., et al. 2004. Identification of glypican-3 as a novel tumor marker for melanoma. *Clin. Cancer Res.* 10: 6612-6621.
2. Wegrowski, Y., et al. 2006. Cell surface proteoglycan expression during maturation of human monocytes-derived dendritic cells and macrophages. *Clin. Exp. Immunol.* 144: 485-493.
3. Ho, M., et al. 2011. Glypican-3: a new target for cancer immunotherapy. *Eur. J. Cancer* 47: 333-338.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



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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 (W-18). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **glypican-3 (F-3): sc-390587**.