

glypican-1 (S-16): sc-33923

BACKGROUND

Glypican-1 (GPC1), a member of the glycosylphosphatidylinositol anchored cell surface heparan sulfate proteoglycans, is involved with cell adhesion and migration, lipoprotein metabolism, modulation of growth factor activities and anticoagulation. Glypican-1 binds to and modulates the activity of several fibroblast growth factors (FGFs) including FGF-1, FGF-2 and FGF-7. Glypican-1 acts as an extracellular chaperone for VEGF165 to help restore receptor binding ability after oxidation. The heparan sulfate chains of glypican-1 mediate specific binding of glypican-1 to VEGF165. When present on the surface of marrow stromal cells, glypican-1 may aid in the maintenance and development of hematopoietic stem and progenitor cells. Human pancreatic cancer cells express a large amount of glypican-1 when compared to glypican-1 levels in normal pancreatic cells. Glypican-1 may play an important role in the response of pancreatic cancer cells to mitogenic stimuli, such as FGF-2. The gene encoding human glypican-1 maps to chromosome 2q37.3.

REFERENCES

- David, G. 1993. Integral membrane heparan sulfate proteoglycans. *FASEB J.* 7: 1023-1030.
- Vermeesch, J.R., et al. 1995. Assignment of the human glypican gene (GPC1) to 2q35-q37 by fluorescence *in situ* hybridization. *Genomics* 25: 327-339.

SOURCE

glypican-1 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of glypican-1 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-33923 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

glypican-1 (S-16) is recommended for detection of glypican-1 and to a lesser extent, glypican-4 and glypican-6 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), immunohistochemistry (including paraffin-embedded sections) (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-1 (S-16) is also recommended for detection of glypican-1 and to a lesser extent, glypican-4 and glypican-6 in additional species, including porcine.

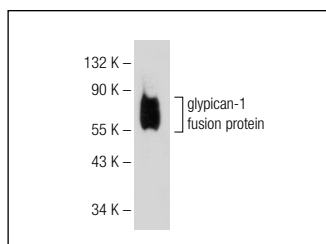
Molecular Weight of glypican-1: 64 kDa.

Positive Controls: mouse brain extract: sc-2253, K-562 whole cell lysate: sc-2203 or LADMAC whole cell lysate: sc-364189.

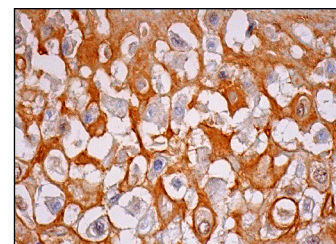
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



glypican-1 (S-16): sc-33923. Western blot analysis of mouse recombinant glypican-1 fusion protein.



glypican-1 (S-16): sc-33923. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane staining of decidual cells and extracellular staining of connective tissue.

SELECT PRODUCT CITATIONS

- Pakula, R., et al. 2007. Syndecan-1/CD147 association is essential for Cyclophilin B-induced activation of p44/42 mitogen-activated protein kinases and promotion of cell adhesion and chemotaxis. *Glycobiology* 17: 492-503.

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 or our catalog for detailed protocols and support products.



Try **glypican-1 (A-10): sc-365000** or **glypican-1 (4D1): sc-101827**, our highly recommended monoclonal alternatives to glypican-1 (S-16).