**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**


**CHROMOSOMAL LOCATION**

Genetic locus: GPC1 (human) mapping to 2q37.3; Gpc1 (mouse) mapping to 1 D.

**SOURCE**

glypican-1 (4D1) is a mouse monoclonal antibody raised against full length glypican-1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG κ, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

glypican-1 (4D1) is available conjugated to agarose (sc-101827 AC), 500 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-101827 PE), fluorescein (sc-101827 FITC), Alexa Fluor® 488 (sc-101827 AF488), Alexa Fluor® 594 (sc-101827 AF594) or Alexa Fluor® 647 (sc-101827 AF647), 200 µg/ml, for IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-101827 AF680) or Alexa Fluor® 790 (sc-101827 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

glypican-1 (4D1) is recommended for detection of glypican-1 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for glypican-1 siRNA (h): sc-40638, glypican-1 siRNA (m): sc-40639, glypican-1 shRNA Plasmid (h): sc-40638-SH, glypican-1 shRNA Plasmid (m): sc-40639-SH, glypican-1 shRNA (h) Lentiviral Particles: sc-40638-V and glypican-1 shRNA (m) Lentiviral Particles: sc-40639-V.

Molecular Weight of glypican-1: 64 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, mouse brain extract: sc-2253 or MIA PaCa-2 cell lysate: sc-2285.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

**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.

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