

glypican-5 (F-3): sc-390838

BACKGROUND

Glypicans are thought to activate or control the activity of morphogens and growth factors, thereby influencing cellular division, regulation of cell growth and differentiation. Neuronal growth and repair are also thought to be controlled by glypicans. Glypican-5 is also known as GPC5 and is a 572 amino acid protein. Glypican-5 is primarily expressed in adult brain tissue (where it is localized to neurons), but is also detected in fetal brain, lung and liver. Glypican-5 is a member of the glypican-related integral membrane proteoglycan family (GRIPS), which is characterized as having a core protein that is able to use glycosyl phosphatidylinositol to attach to the cytoplasmic membrane. Upregulation of glypican-5 has been found in active multiple sclerosis plaques, suggesting that glypican-5 may be involved in pathogenesis of multiple sclerosis. Upregulation of glypican-5 has also been recognized as having a strong correlation with lymphomas, as well as other tumors.

REFERENCES

1. Saunders, S., et al. 1997. Expression of the cell surface proteoglycan glypican-5 is developmentally regulated in kidney, limb, and brain. *Dev. Biol.* 190: 78-93.
2. Veugelers, M., et al. 1997. Characterization of glypican-5 and chromosomal localization of human GPC5, a new member of the glypican gene family. *Genomics* 40: 24-30.
3. Paine-Saunders, S., et al. 1999. GPC6, a novel member of the glypican gene family, encodes a product structurally related to GPC4 and is colocalized with GPC5 on human chromosome 13. *Genomics* 57: 455-458.
4. Veugelers, M., et al. 2001. A 4-Mb BAC/PAC contig and complete genomic structure of the GPC5/GPC6 gene cluster on chromosome 13q32. *Matrix Biol.* 20: 375-385.

CHROMOSOMAL LOCATION

Genetic locus: GPC5 (human) mapping to 13q31.3; Gpc5 (mouse) mapping to 14 E4.

SOURCE

glypican-5 (F-3) is a mouse monoclonal antibody raised against amino acids 301-460 mapping within an internal region of glypican-5 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

glypican-5 (F-3) is available conjugated to agarose (sc-390838 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390838 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390838 PE), fluorescein (sc-390838 FITC), Alexa Fluor[®] 488 (sc-390838 AF488), Alexa Fluor[®] 546 (sc-390838 AF546), Alexa Fluor[®] 594 (sc-390838 AF594) or Alexa Fluor[®] 647 (sc-390838 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390838 AF680) or Alexa Fluor[®] 790 (sc-390838 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

glypican-5 (F-3) is recommended for detection of glypican-5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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-5 siRNA (h): sc-75151, glypican-5 siRNA (m): sc-145458, glypican-5 shRNA Plasmid (h): sc-75151-SH, glypican-5 shRNA Plasmid (m): sc-145458-SH, glypican-5 shRNA (h) Lentiviral Particles: sc-75151-V and glypican-5 shRNA (m) Lentiviral Particles: sc-145458-V.

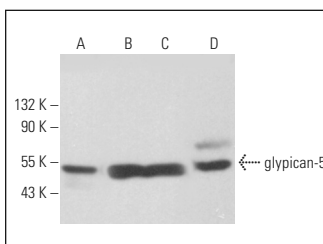
Molecular Weight of glypican-5: 64 kDa.

Positive Controls: Neuro-2A whole cell lysate: sc-364185, F9 cell lysate: sc-2245 or IMR-32 cell lysate: sc-2409.

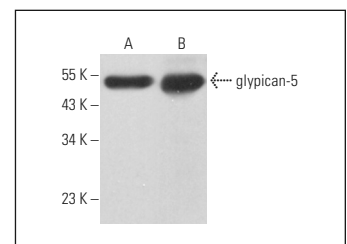
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



glypican-5 (F-3): sc-390838. Western blot analysis of glypican-5 expression in T98G (A), Neuro-2A (B) and F9 (C) whole cell lysates and rat testis tissue extract (D).



glypican-5 (F-3): sc-390838. Western blot analysis of glypican-5 expression in IMR-32 whole cell lysate (A) and mouse postnatal brain tissue extract (B).

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.