



glypican-4 (AT51E3): sc-517403

BACKGROUND

The glypicans are a family of glycosylphosphatidylinositol-anchored heparan sulfate proteoglycans that are involved in the control of cell growth and division. Glypican-4 (GPC4), also known as K-glypican, is a 556 amino acid cell surface proteoglycan that is thought to play a role in the development of the central nervous system and tubules of the kidney. Following cleavage, glypican-4 becomes a secreted protein which localizes to extracellular space. Glypican-4 regulates FGF-2 activity during cortical neurogenesis and is encoded by a gene that maps to human chromosome Xq26.2 and mouse chromosome X A5. Deletion of the glypican-4 gene may be associated with Simpson-Golabi-Behmel syndrome, an X-linked syndrome that is clinically similar to Beckwith-Wiedemann syndrome.

REFERENCES

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8. Online Mendelian Inheritance in Man, OMIM™. 2010. Johns Hopkins University, Baltimore, MD. MIM Number: 300168. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: GPC4 (human) mapping to Xq26.2.

SOURCE

glypican-4 (AT51E3) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 401-529 of glypican-4 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

glypican-4 (AT51E3) is recommended for detection of glypican-4 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for glypican-4 siRNA (h): sc-105400, glypican-4 shRNA Plasmid (h): sc-105400-SH and glypican-4 shRNA (h) Lentiviral Particles: sc-105400-V.

Molecular Weight of glypican-4: 62 kDa.

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) 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.

SELECT PRODUCT CITATIONS

1. He, S., Li, W., Wang, G., Wang, X., Fan, W., Zhang, Z., Li, N. and Hou, S. 2022. FTO-mediated m⁶A modification alleviates autoimmune uveitis by regulating microglia phenotypes via the GPC4/TLR4/NFκB signaling axis. *Genes Dis.* 10: 2179-2193.

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.