**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, is a member of the glypican family of heparan sulfate proteoglycans, which attach to the cell membrane via a glycosylphosphatidylinositol (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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

glypican-3 (F-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 48-74 of glypican-3 of human origin.

**PRODUCT**

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

glypican-3 (F-3) is available conjugated to agarose (sc-390587 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390587 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-390587 PE), fluorescein (sc-390587 FITC) or Alexa Fluor® 488 (sc-390587 AF488) or Alexa Fluor® 647 (sc-390587 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM. Blocking peptide available for competition studies, sc-390587 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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**APPLICATIONS**

glypican-3 (F-3) is recommended for detection of glypican-3 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).

glypican-3 (F-3) 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: COLO 320DM cell lysate: sc-2226, SW480 cell lysate: sc-2219 or HCT-116 whole cell lysate: sc-364175.

**DATA**

glypican-3 (F-3): sc-390587. Western blot analysis of glypican-3 expression in COLO 320DM (A), SW480 (B) and HTC-116 (C) whole cell lysates.

glypican-3 (F-3): sc-390587. Immunochemistry staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization (A). glypican-3 (F-3) Alexa Fluor® 594: sc-390587 AF594. Direct immunofluorescence staining of formalin-fixed SW480 cells showing membrane and cytoplasmic localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (B).

**SELECT PRODUCT CITATIONS**


**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.