

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                                                                                  |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                                                                            |
| <b>Specificity</b>        | Detects human Glypican 6 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human Glypican 2, 3, or 5 is observed.                                                                                                                                                     |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 348701                                                                                                                                                                                                                                                                                 |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                                                                       |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human Glypican 6<br>Asp24-Val527<br>Accession # Q9Y625                                                                                                                                                                                                                           |
| <b>Conjugate</b>          | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 nm                                                                                                                                                                                                                                                  |
| <b>Formulation</b>        | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the [Technical Information](#) section on our website.

|                       | <b>Recommended Concentration</b> | <b>Sample</b>                                                                                                                                                                                                                       |
|-----------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Flow Cytometry</b> | 0.25-1 µg/10 <sup>6</sup> cells  | HepG2 human hepatocellular carcinoma cell line fixed with Flow Cytometry Fixation Buffer (Catalog # <a href="#">FC004</a> ) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # <a href="#">FC005</a> ) |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | <b>Protect from light. Do not freeze.</b><br>● 12 months from date of receipt, 2 to 8 °C as supplied.             |

## BACKGROUND

The Glypicans (*glypiated* proteoglycans) are a small multigene family of GPI-linked heparan sulfate (HS) proteoglycans that likely play a key role in embryonic morphogenesis (1-4). There are currently six known mammalian Glypicans. They all share a common-sized protein core of 60-70 kDa, an N-terminus which likely forms a compact globular domain, 14 conserved cysteines that form multiple intrachain disulfide bonds, and a number of C-terminal N- and O-linked carbohydrate attachment sites. Based on exon organization and the location of O-linked glycosylation sites, at least two subfamilies of Glypicans are known, with one subfamily containing Glypicans 1, 2, 4 and 6, and another subfamily containing Glypicans 3 and 5 (3, 5). Human Glypican 6 (GPC-6) is synthesized as a 554 amino acid (aa) preproprecursor that contains a 23 aa signal sequence, a 505 aa mature region and a 26 aa C-terminal prosegment (5, 6). There are four consecutive Ser-Gly repeats that serve as a heparin sulfate attachment site. GPC-6 is reported to be as large as 110 kDa in size. This translates into approximately 50 kDa of proteoglycan (5). Human to mouse, there is 97% aa identity over the entire GPC-6 molecule. Cells known to express GPC-6 are adult ovary and embryonic vascular and visceral smooth muscle, plus mesenchyme (embryonic connective tissue) in multiple organs (1, 5, 6). The function of GPC-6 is essentially unknown. As a Glypican family member, it may facilitate heparin-binding growth factor signaling and polyamine uptake into expressing cells (7, 8). In this regard, it would appear that GPC-6 with its attendant HS is down-regulated by triiodothyronine during cartilage maturation, thus limiting the availability of sites for FGF sequestration and activity (9).

## References:

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2. Filmus, J. (2001) *Glycobiology* **11**:19R.
3. De Cat, B. and G. David (2001) *Semin. Cell Dev. Biol.* **12**:117.
4. Filmus, J. (2003) *Glycoconj. J.* **19**:319.
5. Veugelers, M. *et al.* (1999) *J. Biol. Chem.* **274**:26968.
6. Paine-Saunders, S. *et al.* (1999) *Genomics* **57**:455.
7. Fransson, L.-A. *et al.* (2004) *Cell Mol. Life Sci.* **61**:1016.
8. Fransson, L.-A. (2003) *Int. J. Biochem. Cell Biol.* **35**:125.
9. Bassett, J.H.D. *et al.* (2006) *Endocrinology* **147**:295.

# Human Glypican 6 Alexa Fluor® 350-conjugated Antibody

Monoclonal Mouse IgG<sub>1</sub> Clone # 348701

Catalog Number: FAB2845U  
100 µg

## PRODUCT SPECIFIC NOTICES

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