Human Glypican 6 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2845

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Glypican 6 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Glypican 6 Asp24-Val527 Accession # Q9Y625
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

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.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human Glypican 6 (Catalog # 2845-GP)
Flow Cytometry	2.5 µg/10^6 cells	HepG2 human hepatocellular carcinoma cell line
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The Glypicans (*glypi*ated proteoglyc*an*s) are a small multigene family of GPI-linked heparan sulfate (HS) proteoglycans that likely play a key role in embryonic morphogenesis (1, 2, 3, 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 downregulated by triiodothyronine during cartilage maturation, thus limiting the availability of sites for FGF sequestration and activity (9).

References:

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