

Anti-Glypican-1 Antibody

Catalog Number: A03871

About GPC1

Glypican-1 antibody is suitable for Cancer, Immunology and Nuclear Signaling research. Glypican-1 (also known as GPC1 or FLJ38078) is a member of the glypican-related integral membrane proteoglycan family (GRIPS). This protein is a heparan sulfate proteoglycan which is composed of a membrane-associated protein core substituted with a variable number of heparan sulfate chains and are anchored to the cell surface via a covalent linkage to glycosylphosphatidylinositol (GPI). Glypicans can modify cell signaling pathways and contribute to cellular proliferation and tissue growth. In humans, glypican-1 is over expressed in breast and brain cancers (gliomas). All glypicans contain an N-terminal signal peptide and a hydrophobic domain in their C-terminal region which is required for attachment of the GPI anchor. The amino acid sequences of the six vertebrate glypican family members vary from 17% to 63% identity. The location of 14 cysteine amino acids is conserved between the glypicans, suggesting the existence of a highly similar three-dimensional structure. Heparan sulfate glycosaminoglycan chains are attached at the 50 amino acids at the C-terminal end of the protein, near the anchor and the cell membrane. Glypican functions as coreceptor for a variety of growth factors. Glypican-1 has been shown to interact with SLIT2.

Overview

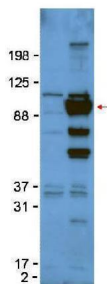
Product Name	Anti-Glypican-1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Glypican-1 Antibody (Catalog # A03871). Tested in ELISA, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store vial at -20°C prior to opening. Aliquot contents and freeze at -20°C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	P35052

Technical Details

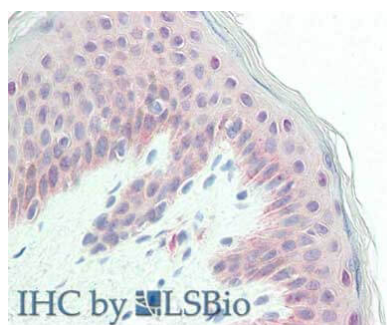
Immunogen	Anti-Glypican-1 protein A purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region of human glypican-1 protein.
Predicted Reactive Species	Chimpanzee

Isotype	IgG
Form	Liquid (sterile filtered)
Concentration	2.0 mg/mL by UV absorbance at 280 nm
Purification	Anti-Glypican-1 was protein A purified from monospecific antiserum by immunoaffinity chromatography using protein A coupled to agarose beads. This antibody is specific for human glypican-1 protein. A BLAST analysis was used to suggest partial cross-reactivity with glypican from rat, mouse, Macaque, dog, cattle, and opossum sources based on 100 - 88% homology with the immunizing sequence. Cross-reactivity with glypican from other sources has not been determined.
Suggested Dilutions	ELISA: 1:10,000 - 1:50,000 IHC: 10µg/mL WB: 1:500- 1:2,000 Anti-Glypican-1 antibody has been tested for use in ELISA, immunohistochemistry, and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~61 kDa in size corresponding to glypican by western blotting in the appropriate cell lysate or extract. The higher molecular weight (110kDa) of transfected Fc-glypican compared with the expected MW of glypican is likely due to the presence of the Fc-tag.

Anti-Glypican-1 Antibody (A03871) Images



Western Blot of Rabbit anti-Glypican-1 antibody. Lane 1: untransfected 293T cell lysate. Lane 2: 293T whole cell lysate. Load: 50ug per lane. Primary antibody: Glypican-1 antibody at 1:1000 for overnight at 4°C. Secondary antibody: HRP Gt-a-Rabbit IgG diluted 1:5,000 at 4° C. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 61kDa, 61kDa for Glypican-1. Other band(s): 110kDa is likely due to the presence of the Fc-tag. Minor bands may represent post translational modifications of glypican-1.



Immunohistochemistry of Rabbit anti-Glypican antibody. Tissue: human skin. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: anti-Glypican antibody at 10 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Staining: Glypican as precipitated red signal with hematoxylin purple nuclear counterstain.

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Anti-Glypican-1 Antibody

For Research Use Only. Not for use in diagnostic procedures.