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Datasheet for 200-401-B44

Glypican 1 Antibody

Overview

Description:	Anti-Glypican 1 (RABBIT) Antibody - 200-401-B44
Item No.:	200-401-B44
Size:	100 µg
Applications:	ELISA, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Glypican-1 antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and 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 glycosylphosphatidlyinositol (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.
Synonyms:	rabbit anti-Glypican-1 Antibody, Glypican 1, Glypican1, Secreted glypican-1, GPC1, FLJ38078
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	GPC1
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide
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.
Purity/Specificity:	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.
Relevant Links:	• NCBI - 30410985 • UniProtKB - P35052 • GeneID - 2817

Application Details

Tested Applications:	ELISA, IHC, WB
Application Note:	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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:50,000
IHC:	10µg/mL
WB:	1:500- 1:2,000

Formulation

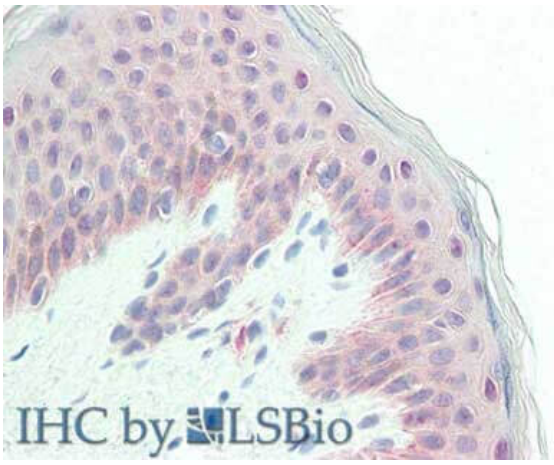
Physical State:	Liquid (sterile filtered)
Concentration:	2.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide

Stabilizer:	None

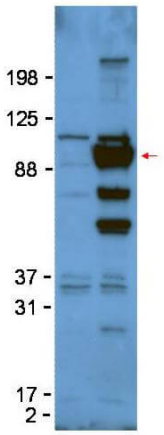
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	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:	Expiration date is one (1) year from date of receipt.

Images



Immunohistochemistry
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.



Western Blot
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.

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