

**Anti-Glypican 1 (RABBIT) Antibody**  
**Glypican 1 Antibody**  
**Catalog # ASR4421****Specification**

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**Anti-Glypican 1 (RABBIT) Antibody - Product Information**

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Rat, Human, Mouse
Clonality	Polyclonal
Application	WB, IHC, E, I, LCI
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.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
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.
Preservative	0.01% (w/v) Sodium Azide

**Anti-Glypican 1 (RABBIT) Antibody - Additional Information****Gene ID 2817****Other Names**  
2817**Purity**

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.

### 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.

### Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

## Anti-Glypican 1 (RABBIT) Antibody - Protein Information

**Name** GPC1

### Function

Cell surface proteoglycan that bears heparan sulfate. Binds, via the heparan sulfate side chains, alpha-4 (V) collagen and participates in Schwann cell myelination (By similarity). May act as a catalyst in increasing the rate of conversion of prion protein PRPN(C) to PRNP(Sc) via associating (via the heparan sulfate side chains) with both forms of PRPN, targeting them to lipid rafts and facilitating their interaction. Required for proper skeletal muscle differentiation by sequestering FGF2 in lipid rafts preventing its binding to receptors (FGFRs) and inhibiting the FGF-mediated signaling.

### Cellular Location

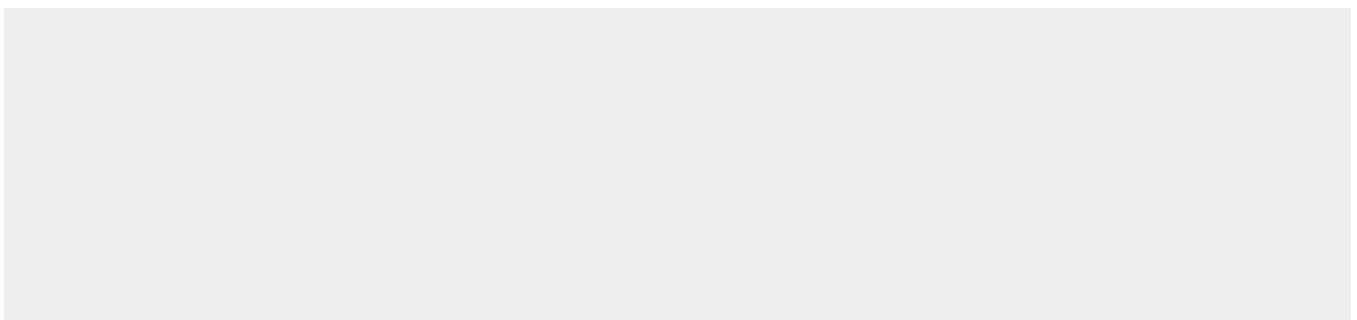
Cell membrane; Lipid-anchor, GPI-anchor; Extracellular side. Endosome. Note=S-nitrosylated form recycled in endosomes. Localizes to CAV1-containing vesicles close to the cell surface. Cleavage of heparan sulfate side chains takes place mainly in late endosomes. Associates with both forms of PRNP in lipid rafts Colocalizes with APP in perinuclear compartments and with CP in intracellular compartments. Associates with fibrillar APP amyloid-beta peptides in lipid rafts in Alzheimer disease brains

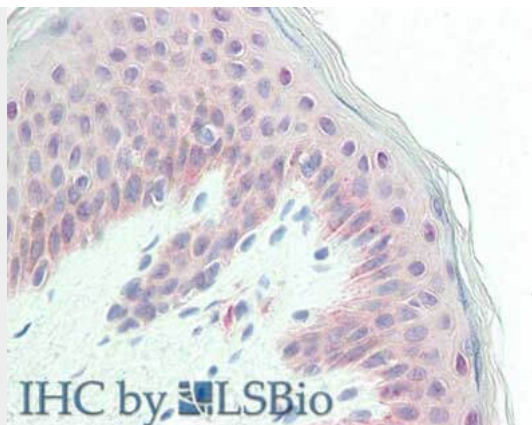
## Anti-Glypican 1 (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-Glypican 1 (RABBIT) Antibody - Images





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.

### **Anti-Glypican 1 (RABBIT) Antibody - 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 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.