

Datasheet for 200-401-B44S

Glypican 1 Antibody

Overview

Description:	Anti-Glypican 1 (RABBIT) Antibody] - 200-401-B44S
Item No.:	200-401-B44S
Size:	25 µL
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 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.

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 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 protein A purified antibody has been tested for use in ELISA, and 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

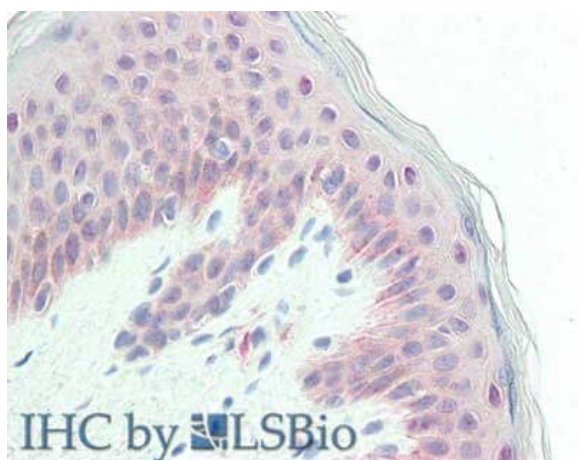
Physical State:	Liquid (sterile filtered)
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Concentration:	2.1 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

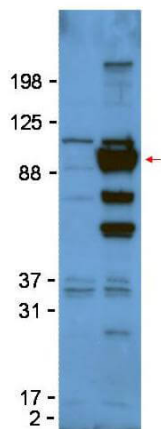
Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is three (3) months 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.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.