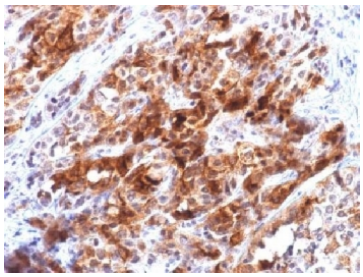
GPC3 Antibody rGPC3/863 / Glypican-3 Monoclonal Antibody [clone rGPC3/863] (V3714)

Catalog No.	Formulation	Size
V3714-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3714-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3714SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3714IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

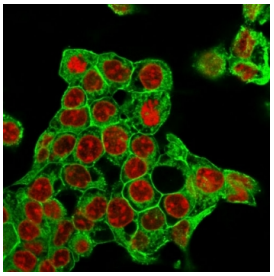
Recombinant MOUSE MONOCLONAL

Bulk quote request

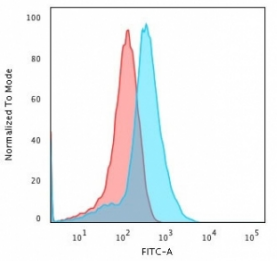
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rGPC3/863
Purity	Protein G affinity chromatography
UniProt	P51654
Localization	Cytoplasmic
Applications	Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This GPC3 Antibody rGPC3/863 / Glypican-3 Monoclonal Antibody is available for research use only.



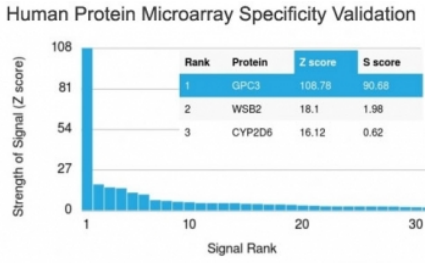
GPC3 Antibody rGPC3/863 IHC Staining of Human Hepatocellular Carcinoma. Immunohistochemical analysis of FFPE human hepatocellular carcinoma tissue using Glypican-3 Monoclonal Antibody clone rGPC3/863. Brown DAB staining is observed in tumor cells, with prominent cytoplasmic and membranous immunoreactivity consistent with the reported expression pattern of glypican-3 in hepatocellular carcinoma. Heat-induced epitope retrieval was performed using 10 mM Tris with 1 mM EDTA at pH 9 for 10-20 minutes, followed by cooling at room temperature for 20 minutes.



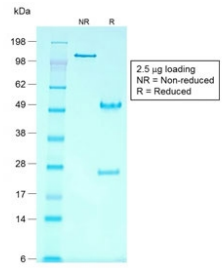
GPC3 Antibody rGPC3/863 IF Staining of Human HepG2 Cells. Immunofluorescence analysis of methanol-fixed human HepG2 cells using Glypican-3 Monoclonal Antibody clone rGPC3/863. Glypican-3-associated fluorescence is shown in green, while RedDot nuclear staining is shown in red. GPC3 is a GPI-anchored proteoglycan that can undergo intracellular processing and trafficking in addition to its localization at the cell surface.



GPC3 Antibody rGPC3/863 FACS Staining of Human HepG2 Cells. Flow cytometry analysis of methanol-fixed human HepG2 cells using Glypican-3 Monoclonal Antibody clone rGPC3/863. The blue histogram represents antibody-stained cells, while the red histogram represents the isotype control. This experiment demonstrates glypican-3 detection in fixed cells and should not be interpreted as validation for live-cell surface staining.



GPC3 Antibody rGPC3/863 HuProt Microarray Analysis of Human Proteins. Human protein microarray analysis using Glypican-3 Monoclonal Antibody clone rGPC3/863 against more than 19,000 full-length human proteins. The HuProt platform evaluates antibody binding across a broad protein panel, with Z-scores representing signal intensity relative to the array background and S-scores describing separation between the highest-ranking protein signals. This experiment provides a broad assessment of antibody binding specificity across the tested protein panel.



GPC3 Antibody rGPC3/863 SDS-PAGE Analysis of Purified Antibody. SDS-PAGE analysis of purified, BSA-free Glypican-3 Monoclonal Antibody clone rGPC3/863. The experiment evaluates the integrity and purity of the antibody preparation rather than glypican-3 expression in a biological sample.

Description

GPC3 Antibody rGPC3/863 / Glypican-3 Monoclonal Antibody targets glypican-3, a cell-surface heparan sulfate proteoglycan encoded by the GPC3 gene. Glypican-3 belongs to a family of membrane-associated proteins that regulate growth factor signaling, cellular proliferation, and tissue development. It is attached to the plasma membrane through a glycosylphosphatidylinositol (GPI) anchor and contains heparan sulfate chains that contribute to interactions with extracellular signaling molecules. These structural features enable GPC3 to influence communication between cells and their surrounding environment.

Glypican-3 participates in several developmental signaling pathways, including Wnt and Hedgehog signaling. Its effects

depend on the cellular context and the availability of interacting ligands and receptors. GPC3 can facilitate canonical Wnt signaling by promoting interactions between Wnt ligands and their receptors, while its regulation of Hedgehog signaling can involve ligand binding and altered ligand availability. Through these mechanisms, glypican-3 contributes to embryonic growth, organ development, and tissue patterning. Loss-of-function mutations in GPC3 cause Simpson-Golabi-Behmel syndrome, an X-linked overgrowth disorder characterized by developmental abnormalities and increased susceptibility to certain embryonal tumors.

GPC3 has attracted considerable attention in cancer biology because its expression is elevated in many hepatocellular carcinomas while remaining limited in most normal adult tissues. This differential expression makes glypican-3 an important biomarker in liver cancer research and diagnostic pathology. GPC3 expression has also been investigated in hepatoblastoma and other malignancies. Beyond its value as a tumor-associated marker, glypican-3 can participate in signaling mechanisms that influence tumor cell proliferation and survival. Its extracellular accessibility has encouraged research into therapeutic strategies, including monoclonal antibodies, antibody-drug conjugates, and chimeric antigen receptor T cells.

The biological significance of glypican-3 extends beyond malignancy to the regulation of growth, morphogenesis, and extracellular signaling. Its expression and molecular interactions provide insight into how heparan sulfate proteoglycans influence developmental pathways and disease-associated changes in cellular behavior. GPC3 Antibody rGPC3/863 provides a means of investigating glypican-3 expression and distribution in studies of hepatocellular carcinoma, developmental signaling, and the regulation of cell-surface protein interactions.

Glypican-3 is an important tumor-associated marker in hepatocellular carcinoma and a focus of cancer research involving cell-surface signaling and targeted therapies.

Application Notes

Optimal dilution of the GPC3 Antibody rGPC3/863 / Glypican-3 Monoclonal Antibody should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.
2. View the non-recombinant version of this GPC3 antibody.

Immunogen

Recombinant full-length human Glypican 3 protein was used as the immunogen for the recombinant GPC3 antibody.

Storage

Store the recombinant GPC3 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Glypican 3 antibody, Glypican-3 protein antibody, GPC3 protein antibody, DGSX antibody, MXR7 antibody, Glypican proteoglycan 3 antibody, Heparan sulfate proteoglycan glypican-3 antibody, Intestinal protein OCI-5 antibody, OCI-5 antibody

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