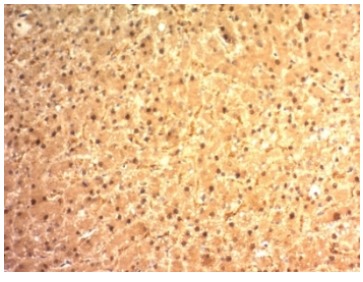
Glypican-3 Antibody [clone SPM595] (V2537)

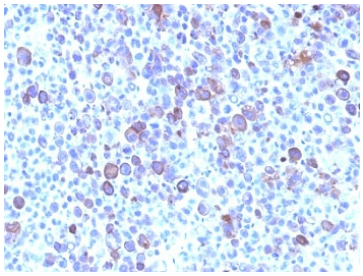
Catalog No.	Formulation	Size
V2537-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2537-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2537SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2537IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

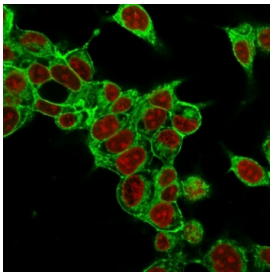
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	SPM595
Purity	Protein G affinity chromatography
UniProt	P51654
Localization	Cytoplasmic
Applications	Flow Cytometry : 1-2ug/million cells Immunofluorescence : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This Glypican-3 antibody is available for research use only.



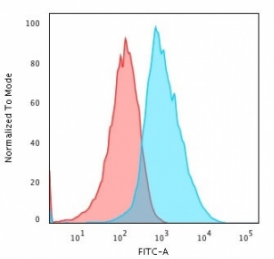
IHC: Formalin-fixed, paraffin-embedded human hepatocellular carcinoma stained with Glypican-3 antibody (clone SPM595). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



IHC: Formalin-fixed, paraffin-embedded human melanoma stained with Glypican-3 antibody (clone SPM595). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Immunofluorescent staining of methanol-fixed HepG2 cells with Glypican-3 antibody (green, clone SPM595) and Reddot nuclear stain (red).



Flow cytometry testing of PFA-fixed human HepG2 cells with Glypican-3 antibody (clone SPM595); Red=isotype control, Blue= Glypican-3 antibody.

Description

Glypican 3 (GPC3) is a cell surface heparan sulfate proteoglycan that is anchored to the plasma membrane via a glycosylphosphatidylinositol (GPI) linkage. It is part of the glypican family, which regulates cell signaling by modulating growth factor interactions. GPC3 influences multiple developmental and signaling pathways, including Wnt, Hedgehog, fibroblast growth factor, and bone morphogenetic protein cascades. A Glypican 3 antibody is widely used to examine these regulatory functions in both developmental and disease-related research.

During embryogenesis, GPC3 is highly expressed in a variety of tissues where it contributes to organ growth, patterning, and morphogenesis. In contrast, its expression is very limited in most normal adult tissues, highlighting its developmental specificity. Importantly, aberrant re-expression of Glypican 3 has been strongly linked to several cancers, particularly hepatocellular carcinoma, hepatoblastoma, and certain germ cell tumors. Because of this, a Glypican 3 antibody is considered an essential tool in cancer diagnostics and in studies focused on tumor biology.

Mechanistically, GPC3 interacts with extracellular ligands and receptors to either promote or inhibit signaling depending on cellular context. By regulating proliferation and apoptosis, it plays dual roles in normal development and disease. Its role in modulating Wnt signaling has made it an attractive target for novel therapeutic strategies, including antibody-based therapies and immunotherapies. Employing a Glypican 3 antibody enables researchers to explore these pathways and assess its diagnostic and therapeutic potential.

NSJ Bioreagents provides a high-quality Glypican 3 antibody validated for applications including immunohistochemistry, western blot, immunofluorescence, and ELISA. Selecting a well-validated Glypican 3 antibody ensures reproducibility and sensitivity across applications, supporting studies in cancer biology, developmental signaling, and biomarker discovery.

Application Notes

Optimal dilution of the Glypican-3 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.

Immunogen

A recombinant fragment containing amino acids 511-580 from the human protein was used as the immunogen for the Glypican-3 antibody.

Storage

Store the Glypican-3 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).