

Product Datasheet

Glypican 3 Antibody / GPC3 (orb2638468)

Catalog Number	orb2638468
Category	Antibodies
Description	Glypican-3 (GPC3) is a glycosylphosphatidyl inositol-anchored membrane protein, which may also be found in a secreted form. Anti-GPC3 has been identified as a useful tumor marker for the diagnosis of hepatocellular carcinoma (HCC), hepatoblastoma, melanoma, testicular germ cell tumors, and Wilms tumor. In patients with HCC, GPC3 is overexpressed in neoplastic liver tissue and elevated in serum, but is undetectable in normal liver, benign liver, and the serum of healthy donors. GPC3 expression is also found to be higher in HCC liver tissue than in cirrhotic liver or liver with focal lesions such as dysplastic nodules and areas of hepatic adenoma (HA) with malignant transformation. In the context of testicular germ cell tumors, GPC3 expression is up regulated in certain histologic subtypes, specifically yolk sac tumors and choriocarcinoma. A high level of GPC3 expression is also found in some types of embryonal tumors, such as Wilms tumor and hepatoblastoma, with a low or undetectable expression in normal adjacent tissue. In patients with thyroid cancer, expression of GPC3 is dramatically enhanced in certain types of cancers: 100% in follicular carcinoma and 70% in papillary carcinoma. Expression of GPC3 in follicular carcinoma is significantly higher than that of follicular adenoma. In contrast, GPC3 is not expressed in anaplastic carcinoma.
Clonality	Monoclonal
Species/Host	Mouse
Isotype	Mouse IgG1, kappa
Conjugation	Unconjugated
Reactivity	Human, Rat
Buffer/Preservatives	0.2 mg/ml in 1X PBS with 0.1 mg/ml rAlbumin (US sourced) and 0.05% sodium azide

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Purity	Protein G affinity chromatography
Immunogen	Recombinant full-length human GPC3 protein was used as the immunogen for the Glypican-3 antibody.
UniProt ID	P51654
Tested applications	FACS, IF, IHC-P
Dilution range	Flow cytometry: 1-2ug/million cells,Immunofluorescence: 1-2ug/ml,Immunohistochemistry (FFPE): 0.5-1ug/ml for 30 min at RT
Application notes	Optimal dilution of the Glypican-3 antibody should be determined by the researcher.1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 10-20 min followed by cooling at RT for 20 min2. 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.3. View the recombinant version of this Glypican-3 antibody.
Antibody Type	Primary Antibody
Clone Number	GPC3/863
Formula	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Hazard Information	This Glypican-3 antibody is available for research use only.
Note	For research use only

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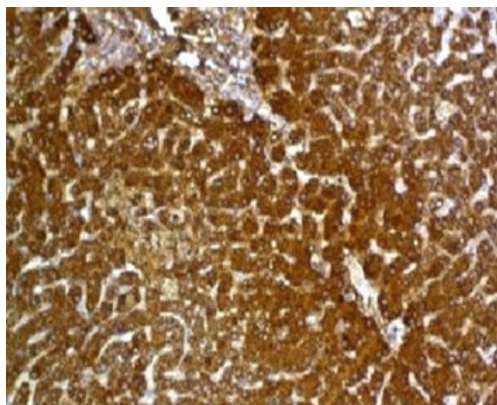
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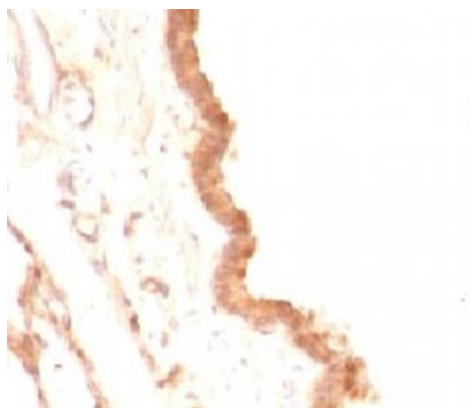
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IHC: Formalin-fixed, paraffin-embedded human hepatocellular carcinoma stained with Glypican-3 antibody (GPC3/863)



IHC: Formalin-fixed, paraffin-embedded rat lung stained with Glypican-3 antibody (GPC3/863)



IHC: Formalin-fixed, paraffin-embedded rat heart stained with Glypican-3 antibody

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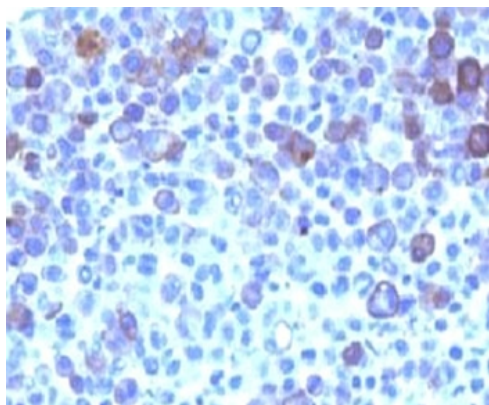
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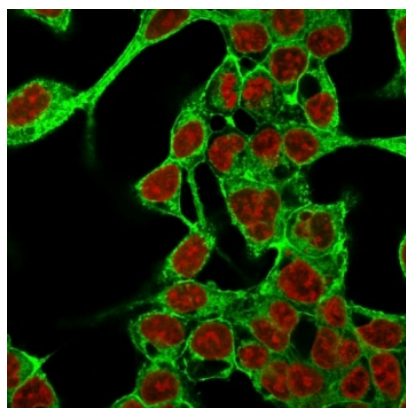
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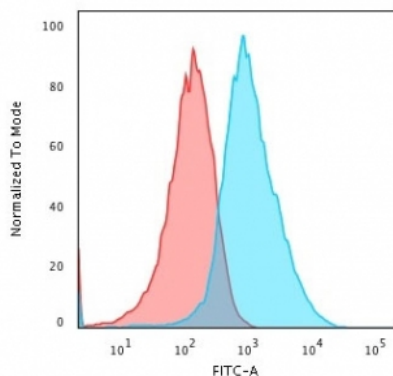
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IHC: Formalin-fixed, paraffin-embedded human melanoma stained with Glypican-3 antibody



Immunofluorescent staining of methanol-fixed HepG2 cells with Glypican-3 antibody (green, clone GPC3/863) and Reddot nuclear stain (red).



Flow cytometry testing of PFA-fixed human HepG2 cells with Glypican-3 antibody (clone GPC3/863); Red = isotype control, Blue = Glypican-3 antibody.

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