

anti-human Glypican - 3

1G12 Monoclonal antibody to human Glypican-3 (GPC3)

Product Data Sheet

Catalog #s - **B0025R, B0055R**

BACKGROUND

Glypican-3 (GPC3) is a member of the glypican family of glycosyl phosphatidylinositol-anchored cell-surface heparan sulfate proteoglycans. The 1G12 monoclonal antibody has been used to assess GPC3 expression in malignant and nonmalignant liver tissue samples and for enzyme-linked immunosorbent assay (ELISA) for detection of GPC3 in the serum. Studies have shown that GPC3 is expressed at the protein level in most HCCs, but it is undetectable in normal liver and benign hepatic lesions, including dysplastic and cirrhotic nodules. In addition, GPC3 is significantly elevated in the serum of a large proportion of patients with HCC. Based on these results, it has been proposed that GPC3 could be a useful marker to differentiate between benign and malignant liver diseases.

IMMUNOGEN

Balb/C mice immunized with a single i.p. injection of 50 µg of a fragment containing the last 70 amino acids of the core protein.

SHIP CONDITIONS

Ship at ambient temperature, refrigerate upon arrival.

STORAGE

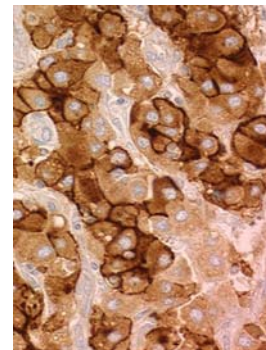
Product should be stored at 2-8°C.

STABILITY

Products are stable for one (1) year from purchase when stored properly.

Ordering Information

Catalog #s -	B0025R, B0055R
Size -	25 microgram (B0025R) 250 microgram (B0055R)
Form -	Protein G-Purified
Host/Clone -	Mouse/1G12
Formulation -	Phosphate buffered saline with 0.08% sodium azide
Concentration -	0.5 milligram / ml
Isotype -	IgG1
Application -	ELISA, Western Blot, Immunohistochemistry



Immunohistochemical staining of human liver tissue section from hepatocellular carcinoma (HCC) using the anti-GPC3 1G12 mAb showing heavy granular pattern and membrane staining in HCC tissue.

REFERENCES

- Capurro, M., Wanless, I. R., Sherman, M., Deboer, G., Shi, W., Miyoshi, E., and Filmus, J. Glypican-3: a novel serum and histochemical marker for hepatocellular carcinoma. *Gastroenterology*, 125: 89-97, 2003.
- Wang X.Y., Degos F., Dubois S., Tessitore S., Allegretta M., Guttmann R.D., Jothy S., Belghiti J., Bedossa P., Paradis V. Glypican-3 expression in hepatocellular tumors: diagnostic value for preneoplastic lesions and hepatocellular carcinomas. *Human Pathology*. Nov; 37 (11):1435-41, 2006.
- Libbrecht L., Severi T., Cassiman D., Borghet S.V., Pirenne J., Nevens F., Verslype C., van Pelt J., Roskams T. Glypican-3 expression distinguishes small hepatocellular carcinomas from cirrhosis, dysplastic nodules, and focal nodular hyperplasia-like nodules. *Am J Surg Pathol*. Nov ;30(11):1405-11, 2006.
- Di Tommaso L, Franchi G, Park YN, Fiamengo B, Destro A, Morenghi E, Montorsi M, Torzilli G, Tommasini M, Terracciano L, Tornillo L, Vecchione R and Roncalli M. Diagnostic value of HSP70, glypican 3, and glutamine synthetase in hepatocellular nodules in cirrhosis, Mar; 45 (3): 725-34, 2007.