10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Glypican-3 (GPC3) (Hepatocellular Carcinoma Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone 1G12]
Catalog # AH11314

Product Information

Application	IHC, IF, FC
Primary Accession	P51654
Other Accession	2719, 644108
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	1G12
Calculated MW	65563

Additional Information

Gene ID	2719
Other Names	Glypican-3, GTR2-2, Intestinal protein OCI-5, MXR7, Secreted glypican-3, GPC3, OCI5
Application Note	IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Glypican-3 (GPC3) (Hepatocellular Carcinoma Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GPC3
Synonyms	OCI5
Function	Cell surface proteoglycan (PubMed: 14610063). Negatively regulates the hedgehog signaling pathway when attached via the GPI- anchor to the cell surface by competing with the hedgehog receptor PTC1 for binding to hedgehog proteins (By similarity). Binding to the hedgehog protein SHH triggers internalization of the complex by endocytosis and its subsequent lysosomal degradation (By similarity). Positively regulates the canonical Wnt signaling pathway by binding to the Wnt receptor Frizzled and stimulating the binding of the Frizzled receptor to Wnt ligands (PubMed:16227623, PubMed:24496449). Positively regulates the non-canonical Wnt signaling

	pathway (By similarity). Binds to CD81 which decreases the availability of free CD81 for binding to the transcriptional repressor HHEX, resulting in nuclear translocation of HHEX and transcriptional repression (By similarity). Inhibits the dipeptidyl peptidase activity of DPP4 (PubMed:17549790). Plays a role in limb patterning and skeletal development by controlling the cellular response to BMP4 (By similarity). Modulates the effects of growth factors BMP2, BMP7 and FGF7 on renal branching morphogenesis (By similarity). Required for coronary vascular development (By similarity). Plays a role in regulating cell movements during gastrulation (By similarity).
Cellular Location	Cell membrane; Lipid-anchor, GPI-anchor {ECO:0000250|UniProtKB:P13265}; Extracellular side {ECO:0000250|UniProtKB:P13265}
Tissue Location	Detected in placenta (at protein level) (PubMed:32337544). Highly expressed in lung, liver and kidney

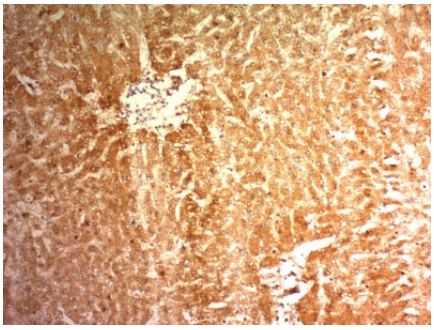
Background

Recognizes a protein, which is identified as HGAL. It contains a putative PDZ-interacting domain, an immunoreceptor tyrosine-based activation motif (ITAM), and two putative SH2 binding sites. In B cells, its expression is specifically induced by interleukin-4. HGAL is specifically expressed in germinal center B-cells, but is absent in mantle and marginal zone B-cells and in the inter-follicular and para-cortical regions in normal tonsils and lymph nodes. Its high degree of specificity for germinal center B-cells makes anti-HGAL an ideal marker for the detection of germinal center-derived B-cell lymphomas. HGAL expression has been used to help elucidate nodal marginal zone lymphoma (NMZL) from cases of diffuse follicle center lymphoma. Additionally, HGAL expression was shown to correlate with survival in patients with diffuse large B-cell lymphoma (DLBCL).

References

Yan, B., et al. 2011. Expression and clinicopathologic significance of glypican 3 in hepatocellular carcinoma. Ann. Diagn. Pathol. 15: 162-169

Images



Formalin-fixed, paraffin-embedded human Hepatocellular Carcinoma stained with Glypican-3 Monoclonal Antibody (1G12)