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GPC3 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14822b

Product Information

Application	WB, E
Primary Accession	P51654
Other Accession	NP_004475.1
Reactivity	Human
Predicted	Mouse, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34500
Calculated MW	65563
Antigen Region	465-494

Additional Information

Gene ID	2719
Other Names	Glypican-3, GTR2-2, Intestinal protein OCI-5, MXR7, Secreted glypican-3, GPC3, OCI5
Target/Specificity	This GPC3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 465-494 amino acids from the C-terminal region of human GPC3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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.
Precautions	GPC3 Antibody (C-term) 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

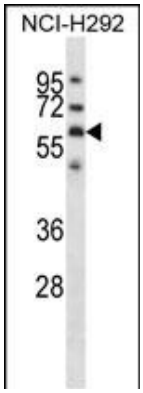
Cell surface heparan sulfate proteoglycans are composed of a membrane-associated protein core substituted with a variable number of heparan sulfate chains. Members of the glypican-related integral membrane proteoglycan family (GRIPS) contain a core protein anchored to the cytoplasmic membrane via a glycosyl phosphatidylinositol linkage. These proteins may play a role in the control of cell division and growth regulation. The protein encoded by this gene can bind to and inhibit the dipeptidyl peptidase activity of CD26, and it can induce apoptosis in certain cell types. Deletion mutations in this gene are associated with Simpson-Golabi-Behmel syndrome, also known as Simpson dysmorphia syndrome. Alternative splicing results in multiple transcript variants.

References

Lai, J.P., et al. Hepatology 52(5):1680-1689(2010)
Sakurai, M., et al. Gynecol. Oncol. 119(2):332-336(2010)
Zynger, D.L., et al. Histopathology 56(6):750-757(2010)
Davoodi, J., et al. Proteomics 7(13):2300-2310(2007)
Hsu, H.C., et al. Cancer Res. 57(22):5179-5184(1997)

Images

GPC3 Antibody (C-term) (Cat. #AP14822b) western blot analysis in NCI-H292 cell line lysates (35ug/lane).This demonstrates the GPC3 antibody detected the GPC3 protein (arrow).



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