

NOTUM Antibody

Catalog # ASC10954

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q6P988
Other Accession	NP_848588 , 194394139
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	55699
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	NOTUM antibody can be used for detection of NOTUM by Western blot at 0.5 - 1 μ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	147111
Other Names	Protein notum homolog, 3.-.-., NOTUM
Target/Specificity	NOTUM;
Reconstitution & Storage	NOTUM antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	NOTUM Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NOTUM (HGNC:27106)
Function	Carboxylesterase that acts as a key negative regulator of the Wnt signaling pathway by specifically mediating depalmitoleoylation of WNT proteins. Serine palmitoleoylation of WNT proteins is required for efficient binding to frizzled receptors (PubMed: 25731175).
Cellular Location	Secreted {ECO:0000250 UniProtKB:Q9VUX3}.
Tissue Location	Rarely expressed in adult normal tissues.

Background

NOTUM Antibody: In *Drosophila*, the *notum* gene is regulated by the Wingless pathway and encodes a secreted hydrolase that modifies heparan sulfate proteoglycans. The mammalian homolog has been shown to be able to cleave glypicans and can release GPI-anchored proteins from the mammalian cell surface. Like the *Drosophila* NOTUM, the mammalian protein can act as a negative regulator of the Wnt signaling pathway. NOTUM is expressed at a low level in most mammalian tissues, although it is overexpressed in a subset of human hepatocellular carcinomas. Its transcription is regulated by beta-catenin/TCF and is a target of the Wnt signaling pathway, forming a negative feedback loop that regulates the expression and activity of the Wnt pathway.

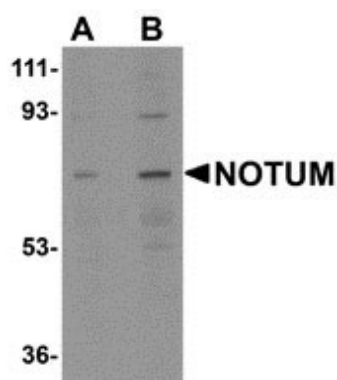
References

Giraldez AJ, Copley RR, and Cohen SM. HSPG modification by the secreted enzyme Notum shapes the wingless morphogen gradient. *Dev. Cell* 2002; 667-76.

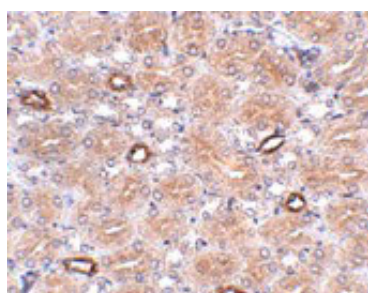
Traister A, Shi W, and Filmus J. Mammalian Notum induces the release of glypicans and other GPI-anchored proteins from the cell surface. *Biochem. J.* 2008; 410:503-11.

Torisu Y, Watanabe A, Nonaka A, et al. Human homolog of NOTUM, overexpressed in hepatocellular carcinoma, is regulated transcriptionally by b-catenin/TCF. *Cancer Sci.* 2008; 6:1139-46.

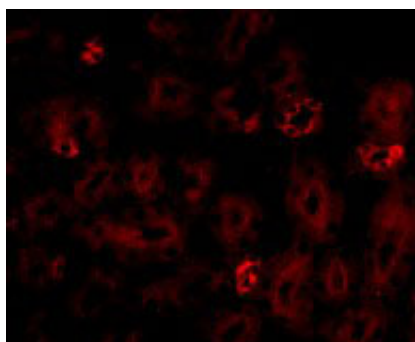
Images



Western blot analysis of NOTUM in human kidney tissue lysate with NOTUM antibody at (A) 0.5 and (B) 1 µg/mL.



Immunohistochemistry of NOTUM in human brain tissue with NOTUM antibody at 2.5 µg/mL.



Immunofluorescence of NOTUM in Mouse Kidney cells with NOTUM antibody at 20 µg/mL.

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