

# NOTUM Antibody

Catalog # ASC10954

### Specification

# **NOTUM Antibody - Product Information**

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes WB, IHC, IF <u>O6P988</u> NP\_848588, <u>194394139</u> Human, Mouse, Rat Rabbit Polyclonal IgG NOTUM antibody can be used for detection of NOTUM by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.

## **NOTUM Antibody - Additional Information**

Gene ID 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.

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#### Precautions

NOTUM Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### **NOTUM Antibody - Protein Information**

Name NOTUM (<u>HGNC:27106</u>)

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:<a href="http://www.uniprot.org/citations/25731175" target="\_blank">25731175</a>).

Cellular Location Secreted {ECO:0000250|UniProtKB:Q9VUX3}.

**Tissue Location** Rarely expressed in adult normal tissues.

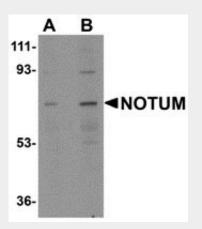


# **NOTUM Antibody - Protocols**

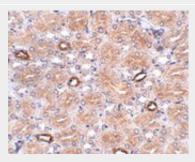
Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

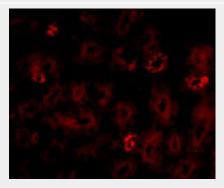
# **NOTUM Antibody - Images**



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

# NOTUM Antibody - 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 Drosophilia 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.

## **NOTUM Antibody - References**

Giraldez AJ, Copley RR, and Cohen SM. HSPG modification by the secreted enzyme Notum shapes the wingless morphogen gradient. Dev. Cell2002; 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.