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WNT5A Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1271a

Specification

WNT5A Antibody - Product Information

Application	**WB, IHC, ICC, E**
Primary Accession	P41221
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**42.3kDa KDa**

Description
WNT5A: wingless-type MMTV integration site family, member 5A. Entrez Protein: NP_003383. The WNT gene family consists of structurally related genes which encode secreted signaling proteins. These proteins have been implicated in oncogenesis and in several developmental processes, including regulation of cell fate and patterning during embryogenesis. This gene is a member of the WNT gene family. It encodes a protein which shows 98%, 98% and 87% amino acid identity to the mouse, rat and the xenopus Wnt5A protein, respectively. The experiments performed in Xenopus laevis embryos identified that human frizzled-5 (hFz5) is the receptor for the Wnt5A ligand and the Wnt5A/hFz5 signaling mediates axis induction.

Immunogen
Purified recombinant fragment of WNT5A expressed in E. Coli.

Formulation
Ascitic fluid containing 0.03% sodium azide.

WNT5A Antibody - Additional Information

Gene ID 7474

Other Names
Protein Wnt-5a, WNT5A

Dilution
WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000
ICC~~1:200~~1000
E~~N/A

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
WNT5A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

WNT5A Antibody - Protein Information

Name WNT5A

Function
Ligand for members of the frizzled family of seven transmembrane receptors. Can activate or inhibit canonical Wnt signaling, depending on receptor context. In the presence of FZD4, activates beta-catenin signaling. In the presence of ROR2, inhibits the canonical Wnt pathway by promoting beta-catenin degradation through a GSK3-independent pathway which involves down-regulation of beta- catenin-induced reporter gene expression (By similarity). Suppression of the canonical pathway allows chondrogenesis to occur and inhibits tumor formation. Stimulates cell migration. Decreases proliferation, migration, invasiveness and clonogenicity of carcinoma cells and may act as a tumor suppressor (PubMed:15735754). Mediates motility of melanoma cells (PubMed:17426020). Required during embryogenesis for extension of the primary anterior-posterior axis and for outgrowth of limbs and the genital tubercle. Inhibits type II collagen expression in chondrocytes (By similarity).

Cellular Location
Secreted, extracellular space, extracellular matrix. Secreted

Tissue Location
Expression is increased in differentiated thyroid carcinomas compared to normal thyroid tissue and anaplastic thyroid tumors where expression is low or undetectable. Expression is found in thyrocytes but not in stromal cells (at protein level) (PubMed:15735754). Detected in neonate heart and lung (PubMed:8288227)

WNT5A Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

WNT5A Antibody - Images

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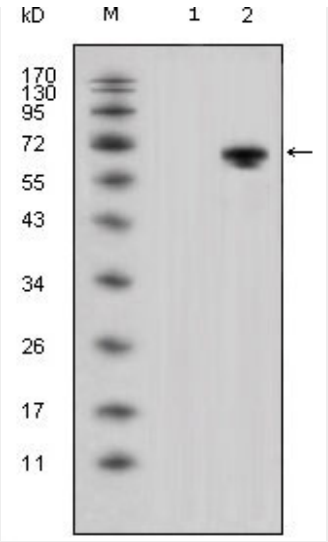

Figure 1: Western blot analysis using WNT5A mouse mAb against HEK293 (1) and WNT5A-hIgGFc transfected HEK293 cell lysate (2).

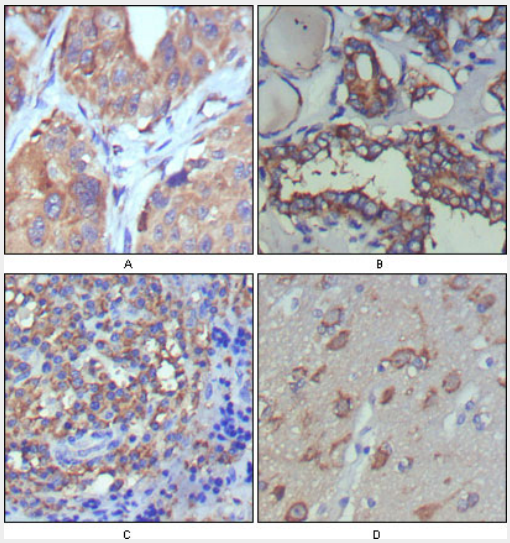

Figure 2: Immunohistochemical analysis of paraffin-embedded human lung cancer (A), thyroid cancer (B), lymph node (C) and brain (D) showing cytoplasmic and extracellular matrix localization using WNT5A mouse mAb with DAB staining.

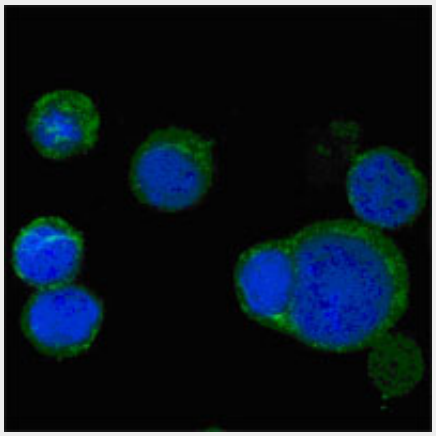

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Figure 3: Confocal immunofluorescence analysis of PC-12 cells using WNT5A mouse mAb (green), showing cytoplasmic localization. Blue: DRAQ5 fluorescent DNA dye.

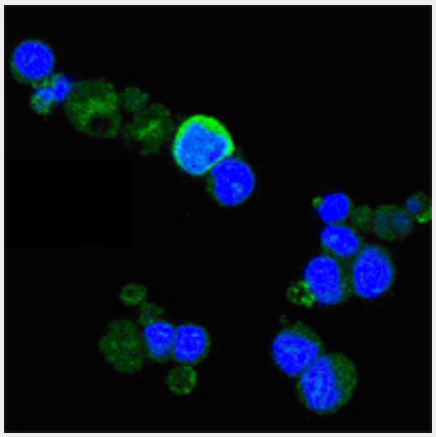

Figure 2: Confocal immunofluorescence analysis of PC-12 cells using TrkA mouse mAb (green), showing membrane and cytoplasmic localization. Blue: DRAQ5 fluorescent DNA dye.

WNT5A Antibody - References

1. Cancer Res. 2008 Jul 15;68(14):5785-94. 2. Proc Natl Acad Sci U S A. 2009 Mar 10;106(10):3919-24.