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WNT5A Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1280a

Product Information

Application	WB, IHC, E
Primary Accession	P41221
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3D10
Isotype	IgG1
Calculated MW	42339
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.

Additional Information

Gene ID	7474
Other Names	Protein Wnt-5a, WNT5A
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 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.

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)

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.

Images

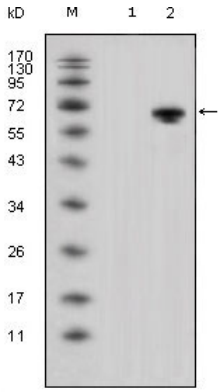

Figure 1: Western blot analysis using WNT5A mouse mAb against HEK293 (1) and WNT5A-hIgGFc transfected HEK293 cell lysate (2).

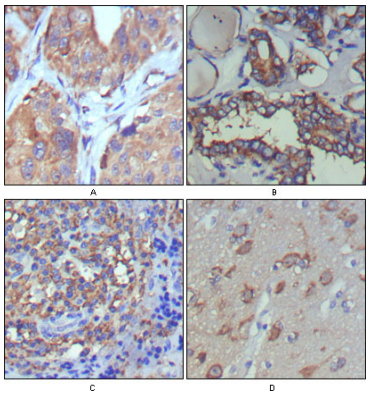

Figure 2: Immunohistochemical analysis of paraffin-embedded human lung cancer (A), thyroid cancer (B), lymph node (C) and brain (D) showing cytoplasmic and extracellular matrix localization using WNT5A mouse mAb with DAB staining.

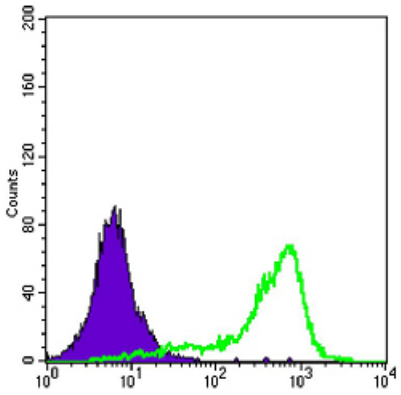

Figure 4: Flow cytometric analysis of A431 cells using SOD1 mouse mAb (green) and negative control (purple).

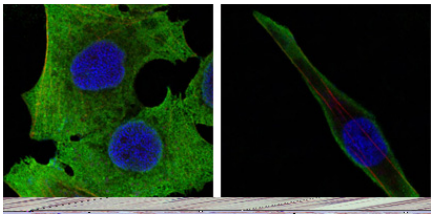

Figure 2: Confocal immunofluorescence analysis of PANC-1 (left) and SKBR-3 (right) cells using SOD1 mouse mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

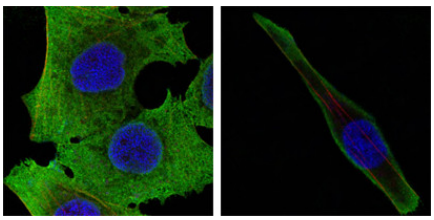

Figure 2: Confocal immunofluorescence analysis of PANC-1 (left) and SKBR-3 (right) cells using anti-SOD1 mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

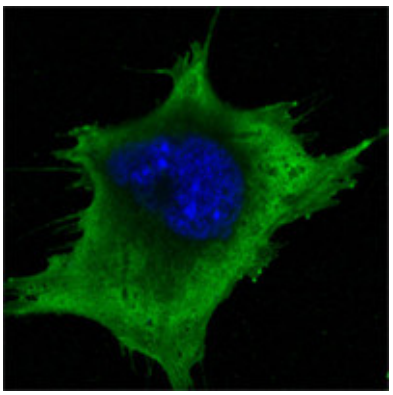

Figure 3: Confocal immunofluorescence analysis of 3T3-L1 cells using anti-SOD1 mAb (green). Blue: DRAQ5 fluorescent DNA dye.