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WNT5A Rabbit pAb

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Catalog # AP52204

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P41221
Reactivity	Rat, Human, Mouse
Predicted	Pig, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	42339
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human WNT5A
Epitope Specificity	301-381/381
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Secreted, extracellular space, extracellular matrix.
DISEASE	Defects in WNT5A are the cause of Robinow syndrome autosomal dominant (DRS) [MIM:180700]. A disease characterized by short-limb dwarfism, costovertebral segmentation defects and abnormalities of the head, face and external genitalia. The clinical signs are generally milder in dominant cases.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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 encodes a member of the WNT family that signals through both the canonical and non-canonical WNT pathways. This protein is a ligand for the seven transmembrane receptor frizzled-5 and the tyrosine kinase orphan receptor 2. This protein plays an essential role in regulating developmental pathways during embryogenesis. This protein may also play a role in oncogenesis. Mutations in this gene are the cause of autosomal dominant Robinow syndrome. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jan 2012].

Additional Information

Gene ID	7474
Other Names	Protein Wnt-5a, WNT5A
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/Test

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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)

Background

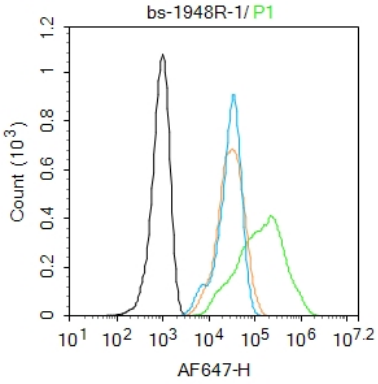
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References

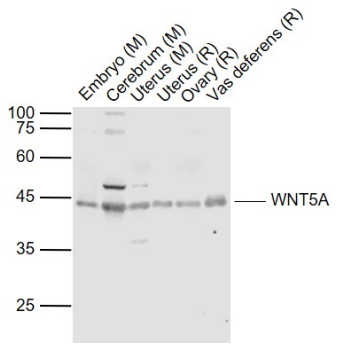
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Kremenevskaja N.,et al.Oncogene 24:2144-2154(2005).
Dissanayake S.K.,et al.J. Biol. Chem. 282:17259-17271(2007).

Images

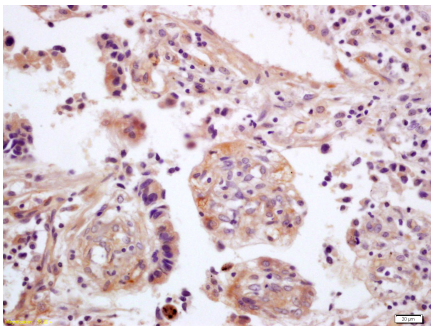
Blank control: HepG2.
Primary Antibody (green line): Rabbit Anti-WNT5A antibody (AP52204)
Dilution: 1 µg /10^6 cells;
Isotype Control Antibody (orange line): Rabbit IgG .
Secondary Antibody : Goat anti-rabbit IgG-AF647
Dilution: 1 µg /test.



Protocol
The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Sample:
Lane 1: Embryo (Mouse) Lysate at 40 ug
Lane 2: Cerebrum (Mouse) Lysate at 40 ug
Lane 3: Uterus (Mouse) Lysate at 40 ug
Lane 4: Uterus (Rat) Lysate at 40 ug
Lane 5: Ovary (Rat) Lysate at 40 ug
Lane 6: Vas deferens (Rat) Lysate at 40 ug
Primary: Anti-WNT5A (AP52204) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 42 kD
Observed band size: 42 kD



Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37∩ for 20 min;
Incubation: Anti-WNT5A Polyclonal Antibody, Unconjugated(AP52204) 1:200, overnight at 4∑C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.