

Inversin Rabbit pAb

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Catalog # AP54852

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9Y283
Reactivity	Human, Mouse
Predicted	Rat, Chimpanzee, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	117826
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Inversin/Nephrocystin 2
Epitope Specificity	31-130/1065
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	Cytoplasm, cytoskeleton, spindle, membrane; Peripheral membrane protein, nucleus. Note=Associates with several components of the cytoskeleton including ciliary, random and polarized microtubules. During mitosis, it is recruited to mitotic spindle. Frequently membrane-associated, membrane localization is dependent upon cell-cell contacts and is redistributed when cell adhesion is disrupted after incubation of the cell monolayer with low-calcium/EGTA medium.
DISEASE	Defects in INVS are the cause of nephronophthisis type 2 (NPHP2) [MIM:602088]; also known as infantile nephronophthisis. NPHP2 is an autosomal recessive disorder resulting in end-stage renal disease. It is characterized by early onset and rapid progression. Phenotypic manifestations include enlarged kidneys, chronic tubulo-interstitial nephritis, anemia, hyperkalemic metabolic acidosis. Some patients also display situs inversus. Pathologically, it differs from later-onset nephronophthisis by the absence of medullary cysts and thickened tubular basement membranes and by the presence of cortical microcysts.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Nephrocystin-2 is a 1,065 amino acid protein that exists as three alternatively spliced isoforms and is essential for establishment of the left-right axis and normal renal development. Localizing to the cytoplasm, cytoskeleton, membrane and nucleus, nephrocystin-2 is expressed during presomite-stage embryos and persists in adulthood, with high levels of expression in liver and kidney. Mice expressing nephrocystin-2 mutations are primarily generated by random insertional mutagenesis and result in the reversal of left/right polarity and cyst formation in the kidneys. Furthermore, altered nephrocystin-2 function reverses nodal and lefty expression, indicating that nephrocystin-2 signaling occurs upstream of these proteins involved in the development of asymmetry.

Additional Information

Gene ID	27130
Other Names	Inversin, Inversion of embryo turning homolog, Nephrocystin-2, INVS, INV, NPHP2
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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

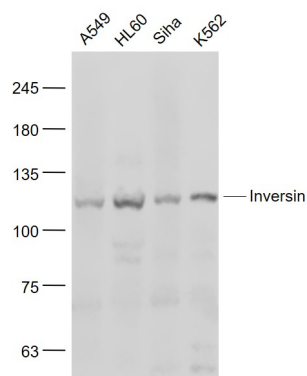
Name	INVS
Synonyms	INV, NPHP2
Function	Required for normal renal development and establishment of left-right axis. Probably acts as a molecular switch between different Wnt signaling pathways. Inhibits the canonical Wnt pathway by targeting cytoplasmic disheveled (DVL1) for degradation by the ubiquitin- proteasome. This suggests that it is required in renal development to oppose the repression of terminal differentiation of tubular epithelial cells by Wnt signaling. Involved in the organization of apical junctions in kidney cells together with NPHP1, NPHP4 and RPGRIP1L/NPHP8 (By similarity). Does not seem to be strictly required for ciliogenesis (By similarity).
Cellular Location	Cytoplasm. Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, spindle. Membrane; Peripheral membrane protein. Nucleus. Cell projection, cilium Note=Associates with several components of the cytoskeleton including ciliary, random and polarized microtubules. During mitosis, it is recruited to mitotic spindle. Frequently membrane-associated, membrane localization is dependent upon cell-cell contacts and is redistributed when cell adhesion is disrupted after incubation of the cell monolayer with low-calcium/EGTA medium
Tissue Location	Widely expressed. Strongly expressed in the primary cilia of renal tubular cells.

Background

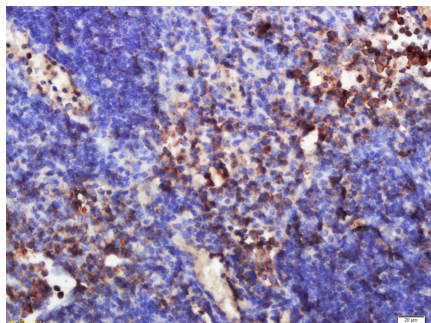
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Images

Sample:
A549(Human) Cell Lysate at 30 ug
HL60(Human) Cell Lysate at 30 ug
Siha(Human) Cell Lysate at 30 ug
K562(Human) Cell Lysate at 30 ug



Primary: Anti- Inversin (AP54852) at 1/1000 dilution
 Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
 Predicted band size: 118 kD
 Observed band size: 118 kD



Tissue/cell: mouse lymph nodes; 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°C for 20 min;
 Incubation: Anti-Inversin Polyclonal Antibody,
 Unconjugated(AP54852) 1:500, 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'.