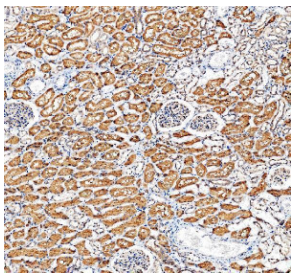
WNT4 Antibody / Developmental Signaling Protein Antibody (RQ5232)

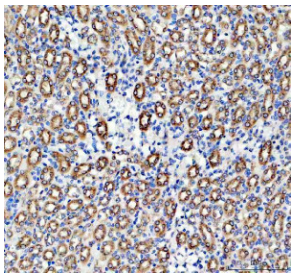
Catalog No.	Formulation	Size
RQ5232	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

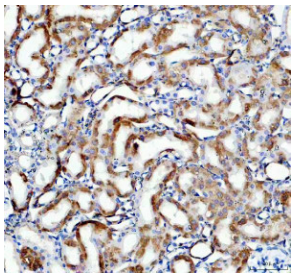
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P56705
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This WNT4 Antibody / Developmental Signaling Protein Antibody is available for research use only.



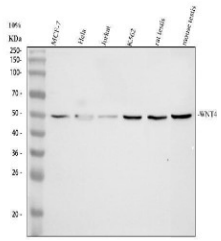
WNT4 Antibody Human Kidney IHC. Immunohistochemical analysis of FFPE human kidney tissue using WNT4 Antibody. Heat-induced epitope retrieval was performed in pH 8.0 EDTA buffer prior to incubation with the primary antibody at 2 ug/mL overnight at 4Â°C. An HRP-conjugated goat anti-rabbit secondary antibody with DAB chromogen was used for visualization. Strong cytoplasmic staining is observed throughout the renal tubular epithelium, while glomeruli exhibit comparatively weaker staining, consistent with endogenous WNT4 expression in kidney tissue. These results demonstrate that WNT4 Antibody, a Developmental Signaling Protein Antibody, specifically detects endogenous WNT4 in FFPE human tissue.



WNT4 Antibody Mouse Kidney IHC. Immunohistochemical analysis of FFPE mouse kidney tissue using WNT4 Antibody. Heat-induced epitope retrieval was performed in pH 8.0 EDTA buffer prior to incubation with the primary antibody at 2 ug/mL overnight at 4Â°C. An HRP-conjugated goat anti-rabbit secondary antibody with DAB chromogen was used for visualization. Prominent cytoplasmic staining is observed throughout the renal tubular epithelium, while glomeruli show comparatively weaker immunoreactivity, consistent with endogenous WNT4 expression in mouse kidney. These results demonstrate that WNT4 Antibody, a Developmental Signaling Protein Antibody, specifically detects endogenous WNT4 in FFPE mouse tissue.



WNT4 Antibody Rat Kidney IHC. Immunohistochemical analysis of FFPE rat kidney tissue using WNT4 Antibody. Heat-induced epitope retrieval was performed in pH 8.0 EDTA buffer prior to incubation with the primary antibody at 2 ug/mL overnight at 4Â°C. An HRP-conjugated goat anti-rabbit secondary antibody with DAB chromogen was used for visualization. Moderate to strong cytoplasmic staining is observed throughout the renal tubular epithelium, with comparatively weaker staining in the glomeruli, consistent with endogenous WNT4 expression in rat kidney. These results demonstrate that WNT4 Antibody, a Developmental Signaling Protein Antibody, specifically detects endogenous WNT4 in FFPE rat tissue.



WNT4 Antibody Human, Rat and Mouse WB. Western blot analysis of WNT4 Antibody using lysates from 1) human MCF-7 cells, 2) human HeLa cells, 3) human Jurkat cells, 4) human K562 cells, 5) rat testis tissue, and 6) mouse testis tissue. Samples (30 ug/lane) were separated on a 10% SDS-PAGE gel under reducing conditions, transferred to a nitrocellulose membrane, and detected with WNT4 Antibody at 0.5 ug/mL followed by an HRP-conjugated secondary antibody and ECL detection. A specific band is observed at approximately 45-50 kDa in all samples, migrating above the predicted molecular weight of approximately 39 kDa, likely reflecting post-translational modification such as glycosylation, which is common for secreted Wnt proteins. These results demonstrate that WNT4 Antibody, a Developmental Signaling Protein Antibody, specifically detects endogenous WNT4 across human, rat, and mouse samples.

Description

WNT4 Antibody recognizes Wnt Family Member 4, a secreted glycoprotein that functions as a key ligand within the highly conserved Wnt signaling pathway. WNT4 is one of the best-characterized members of the Wnt protein family and plays fundamental roles in embryonic development, tissue patterning, organogenesis, and maintenance of adult tissue homeostasis. By binding Frizzled receptors and co-receptors on target cells, WNT4 activates canonical beta-catenin-dependent and non-canonical Wnt signaling pathways that regulate cell fate determination, proliferation, differentiation, migration, and survival. Expression of WNT4 has been identified in numerous developing and adult tissues, including the kidney, ovary, uterus, mammary gland, adrenal gland, and skeletal tissues, reflecting its broad biological importance.

WNT4 is particularly well known for its essential functions in reproductive tract development and sex determination. During embryogenesis, WNT4 promotes female reproductive tract differentiation while suppressing male-specific developmental pathways, making it indispensable for normal Mullerian duct formation and ovarian development. Genetic alterations affecting WNT4 have been linked to disorders of sex development, Mullerian duct abnormalities, and reproductive dysfunction. Beyond developmental biology, WNT4 contributes to kidney morphogenesis, nephron formation, bone remodeling, mammary gland development, and tissue repair. Because of these diverse physiological roles, WNT4 Antibody is widely used to investigate developmental signaling networks, organogenesis, stem cell biology, and mechanisms of tissue regeneration.

Aberrant WNT4 expression has also been implicated in numerous pathological conditions. Dysregulation of Wnt signaling

contributes to cancer development by altering cellular proliferation, differentiation, migration, and epithelial-to-mesenchymal transition. WNT4 expression has been investigated in breast, ovarian, endometrial, colorectal, and other cancers, where its biological effects appear to depend upon cellular context and interactions with other signaling pathways. In addition, altered WNT4 signaling has been associated with fibrosis, inflammatory disorders, endocrine diseases, and abnormalities of bone metabolism. Researchers commonly employ WNT4 Antibody for Western blotting, immunohistochemistry, immunofluorescence, flow cytometry, and related protein expression studies to evaluate developmental signaling activity and characterize tissue-specific expression patterns. Reliable antibodies are particularly valuable for investigating the complex spatial and temporal regulation of WNT4 during normal development and disease progression.

NSJ Bioreagents provides WNT4 Antibody products that undergo validation for research applications to support consistent detection of this important developmental regulator. Whether studying embryogenesis, reproductive biology, stem cell differentiation, organ development, tissue regeneration, or cancer-associated Wnt signaling, a high-quality Developmental Signaling Protein Antibody enables accurate analysis of WNT4 expression and localization. As understanding of Wnt pathway biology continues to expand, WNT4 Antibody remains an essential research tool for investigating developmental signaling mechanisms and their contributions to human health and disease.

Explore our Cancer Antibodies page to discover additional antibodies against proteins involved in cell signaling, proliferation, differentiation, and tumor progression that complement WNT4 Antibody research.

Application Notes

Optimal dilution of the WNT4 Antibody / Developmental Signaling Protein Antibody should be determined by the researcher.

Immunogen

Amino acids K100-E274 from the human protein were used as the immunogen for the WNT4 antibody.

Storage

After reconstitution, the WNT4 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

WNT4 antibody, Wnt4 antibody, Wingless-Type MMTV Integration Site Family Member 4 antibody, Protein Wnt-4 antibody, WNT Family Member 4 antibody, Developmental Signaling Protein antibody

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