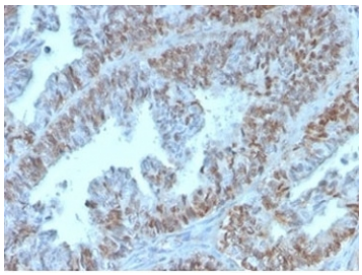
PAX2 Antibody / Paired Box 2 Antibody [clone PAX2/1105] (V8806)

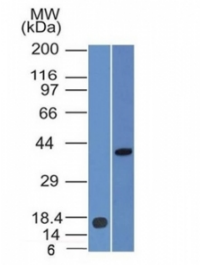
Catalog No.	Formulation	Size
V8806-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V8806-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V8806SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

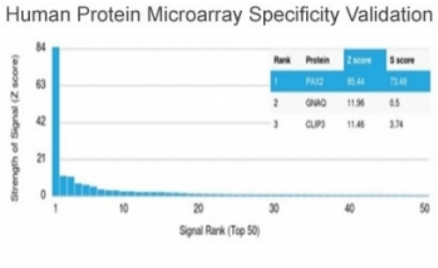
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, lambda
Clone Name	PAX2/1105
Purity	Protein A/G affinity
UniProt	Q02962
Localization	Nucleus
Applications	ELISA (For coating order BSA-free format) Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This PAX2 Antibody / Paired Box 2 Antibody is available for research use only.



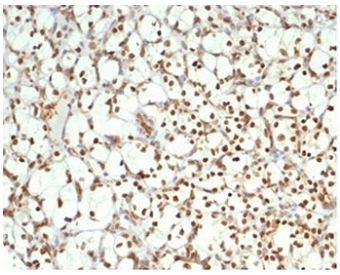
PAX2 Antibody Human Colon IHC. Immunohistochemical staining of FFPE human colon tissue with PAX2 Antibody clone PAX2/1105 demonstrates PAX2 expression. Heat-induced epitope retrieval was performed by boiling sections in pH9 10 mM Tris with 1 mM EDTA for 20 minutes followed by cooling. Brown staining is observed predominantly in nuclei, consistent with the role of PAX2 as a transcription factor, with hematoxylin counterstaining in blue. This PAX2 Antibody, also called Paired Box 2 Antibody, demonstrates the staining characteristics of clone PAX2/1105 in human colon tissue.



PAX2 Antibody Human Kidney WB. Western blot analysis of recombinant PAX2 protein fragment (lane 1) and human kidney lysate (lane 2) using PAX2 Antibody clone PAX2/1105. The recombinant protein fragment is detected at approximately 18 kDa, while endogenous PAX2 is detected near its expected molecular weight of approximately 42 kDa in human kidney lysate. This PAX2 Antibody, also called Paired Box 2 Antibody, demonstrates recognition of recombinant and endogenous PAX2 and supports studies of renal development, transcriptional regulation, and kidney biology.



PAX2 Antibody Protein Microarray Specificity Validation. Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins using PAX2 Antibody clone PAX2/1105 demonstrates strong preferential recognition of PAX2 relative to other proteins represented on the array. The Z-score represents signal strength in standard deviations above the mean signal, while the S-score measures the difference between the intended target and the next highest-ranked signal, providing an indication of relative target specificity. These results demonstrate the high specificity of this PAX2 Antibody, also called Paired Box 2 Antibody, for PAX2 in human protein microarray testing.



PAX2 Antibody Human Renal Cell Carcinoma IHC. Immunohistochemical staining of FFPE human renal cell carcinoma tissue with PAX2 Antibody clone PAX2/1105 demonstrates PAX2 expression. Heat-induced epitope retrieval was performed by boiling sections in pH9 10 mM Tris with 1 mM EDTA for 20 minutes followed by cooling. Prominent brown nuclear staining is observed in tumor cells, with hematoxylin counterstaining in blue. This PAX2 Antibody, also called Paired Box 2 Antibody, supports studies of PAX2 expression, renal tumor biology, and transcriptional regulation.

Description

PAX2 Antibody / Paired Box 2 Antibody recognizes PAX2, a nuclear transcription factor belonging to the paired box family of developmental regulatory proteins. PAX2 contains a conserved paired DNA-binding domain that enables sequence-specific regulation of genes involved in embryonic development, cellular differentiation, and organogenesis. Expression is particularly important during development of the kidney and urogenital system, as well as selected structures of the central nervous system, eye, and ear. PAX2 expression is tightly regulated spatially and temporally, reflecting its role in establishing and maintaining developmental cell lineages.

PAX2 has a particularly important role in renal development. It participates in specification and differentiation of the intermediate mesoderm and subsequent formation of the nephric lineage, ureteric bud, and developing kidney. PAX2 expression is prominent in embryonic renal tissues but becomes substantially restricted in most mature renal structures. Genetic alterations affecting PAX2 can disrupt normal development and are associated with renal and ocular abnormalities. A PAX2 Antibody can therefore support studies of kidney organogenesis, renal cell differentiation, developmental transcriptional regulation, and urogenital biology.

Re-expression or persistent expression of PAX2 has also been investigated in cancer. PAX2 is associated with several renal and MÃ¼llerian-derived tumors and is frequently studied in the characterization of neoplasms involving the kidney and female reproductive tract. Its expression in selected tumor types has made PAX2 useful in research examining tumor differentiation, developmental transcription programs, and the relationship between embryonic regulatory pathways and cancer. A Paired Box 2 Antibody can support investigations of PAX2 expression in renal, ovarian, endometrial, and other tumors in which this transcription factor may contribute to lineage-associated biology.

Clone PAX2/1105 is a mouse monoclonal antibody directed against PAX2 and has been evaluated using a human protein microarray to assess target recognition and potential cross-reactivity across a broad panel of human proteins. Protein microarray validation provides an additional layer of specificity assessment that complements application-specific testing.

NSJ Bioreagents offers PAX2/1105 for research involving developmental biology, transcriptional regulation, renal biology, and cancer. This PAX2 Antibody is a Protein Microarray Validated monoclonal reagent for investigating Paired Box 2 expression and PAX2-associated developmental and disease biology.

Explore our Transcription Factor Antibodies page to find additional antibodies for studying transcriptional regulation, gene expression, cellular differentiation, and developmental signaling.

Application Notes

Optimal dilution of the PAX2 Antibody / Paired Box 2 Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 223-354 was used as the immunogen for the PAX2 antibody.

Storage

Aliquot the PAX2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

PAX2 antibody, Paired Box 2 antibody, PAX-2 antibody, Paired Box Gene 2 antibody

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