

# Anti-PAX8 / DIA-PX8-OD / Clone JAX8

## Mouse monoclonal antibody marker for Ovarian, Thyroid and Renal Cell Carcinoma

### Product Information

<b>Catalog No.:</b>	<b>DIA-PX8-OD</b>	<b>Presentation:</b>	Purified antibody in Tris pH 7.3-7.7 with 1% BSA, <0.1% NaN <sub>3</sub>
<b>Clone:</b>	JAX8	<b>Applications:</b>	Immunohistochemistry (IHC), standard formalin-fixed paraffin sections
<b>Isotype</b>	Mouse IgG2a	<b>Dilutions:</b>	1:100 - 1:200 IHC-P
<b>Quantity</b>	100µl		(General recommendation, validation of antibody performance/protocol is the responsibility of the end user. Positive/negative controls should be run simultaneously with samples)
<b>Specificity:</b>	PAX8		
<b>Physical State:</b>	Liquid		
<b>Species</b>			
<b>Reactivity:</b>	Human		
<b>Positive Control:</b>	Ovarian Carcinoma (non-mucinous), Thyroid Carcinoma, Renal Cell Carcinoma		
<b>Visualization:</b>	Nuclear		

### Background

Mouse monoclonal anti-PAX8 antibody clone JAX8 is suitable for the immunohistological detection of PAX8 in routine-fixed paraffin embedded tissue sections.

PAX8 is a member of the paired box (PAX) family of transcription factors involved in the regulation of early development of the thyroid gland, kidney, and Müllerian tract. PAX8 plays a central role for the expression of thyroid-specific genes and thus, in development of thyroid follicular cells. Mutations in the PAX-8 gene are linked to thyroid follicular carcinomas. In the developing kidney PAX8 is important for renal vesicle formation.

PAX8 is highly expressed in several neoplasms: Epithelial tumors of the thyroid and parathyroid glands, kidney, thymus, pancreatic neuroendocrine tumors and female genital tract. Follicular and papillary thyroid carcinoma are almost always PAX8 positive (while medullary thyroid carcinoma is negative, but anaplastic carcinoma is positive in most cases). PAX8 is also found in almost all cases of endometrial carcinoma and ovarian serous, endometrioid, transitional and clear cell carcinoma. Moreover, PAX8 is found in most cases of renal cell carcinoma (all types) and in oncocytoma as well as in thymic tumours. Different reports have shown that adenocarcinomas of lung and breast are negative for PAX8-expression. Also, PAX-8 is not found in the epithelial cells of the breast, lung, mesothelium, stomach, colon, pancreas.

PAX 8 is a useful IHC marker with a wide range of diagnostic applications and appears to be the most specific and sensitive marker for renal cell carcinoma and ovarian non-mucinous carcinoma.

### Instructions for Use

#### Immunohistochemical staining of standard formalin-fixed paraffin sections

Deparaffinize and rehydrate according to standard procedures. Heat induced epitope retrieval (HIER) is required (pH 9-10 for 10-30 minutes). For immunohistochemical detection different techniques can be used: indirect immunoenzyme labeling with a secondary antibody conjugate, biotin/(strept)avidin-based detection, soluble enzyme immune complex or polymer-based detection. The antibody can be adapted for use on automated staining instruments.

#### Intended use / regulatory status

Europe: For in Vitro Diagnostic Use / All other countries: For Research Use only

### Storage and Stability

Store at 2-8°C. Do not freeze. The antibody is stable until the date indicated on the label, when stored properly.

### Safety Notes

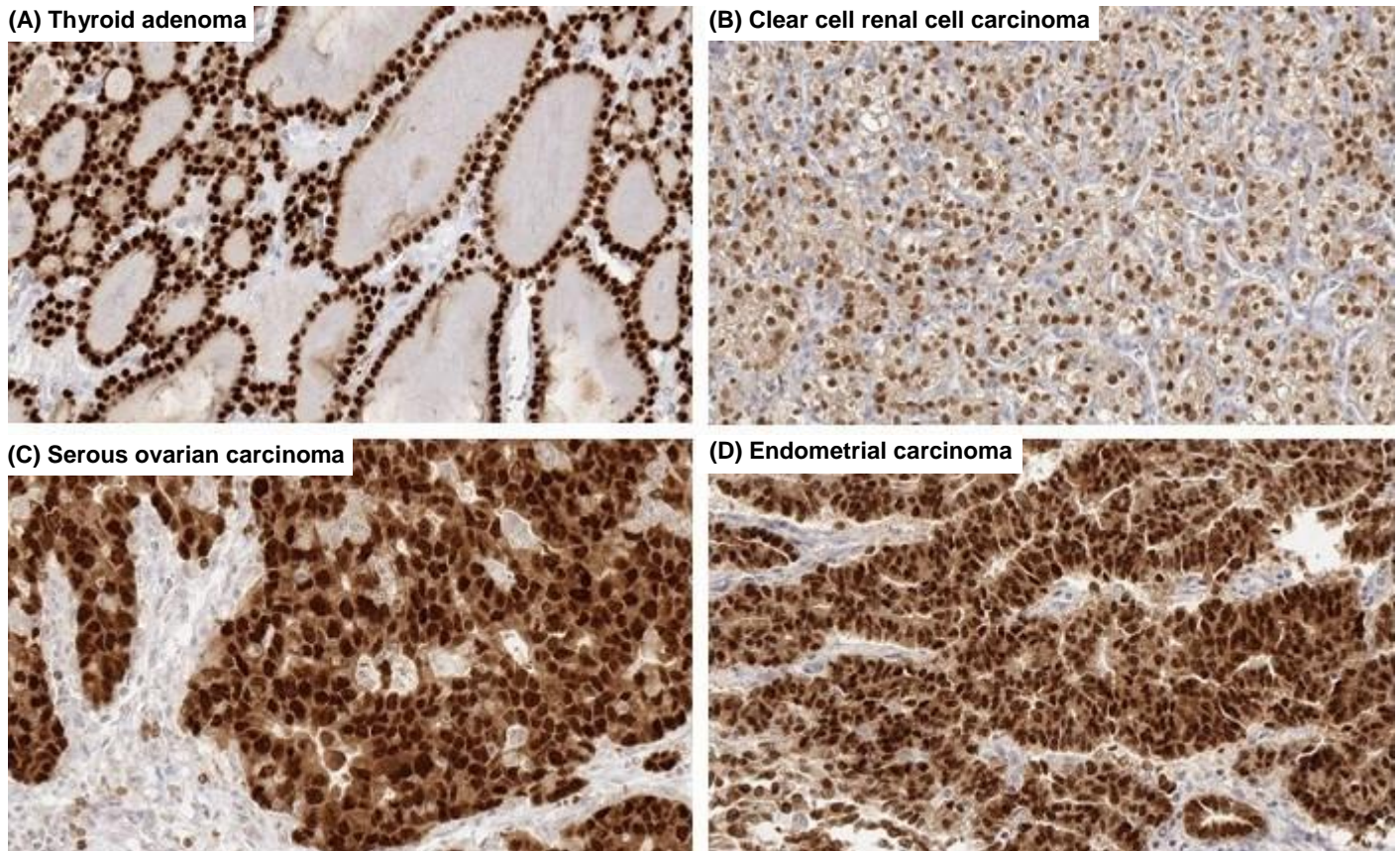
The material contains <1% sodium azide as preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material. Avoid skin and eye contact, inhalation and ingestion.



## Figures

### Immunohistochemistry of human PAX8 in routine formalin-fixed paraffin-embedded tissue samples

- A:** Benign thyroid adenoma with Strong nuclear PAX8 positivity.  
**B:** Clear cell renal cell carcinoma with nuclear PAX8 staining.  
**C:** Serous ovarian carcinoma with strong nuclear PAX8 staining.  
**D:** Endometrial carcinoma with strong PAX8 staining.



(Pictures kindly provided by the Department of Pathology, University Hospital Eppendorf, Hamburg, Germany)

## References

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9. Ozcan A et al. (2011) PAX 8 expression in non-neoplastic tissues, primary tumors, and metastatic tumors: a comprehensive immunohistochemical study. *Mod Pathol.*; 24: 751-764.

