PAX-8 (polyclonal)

For In Vitro Diagnostic Use (IVD)
English: Instructions For Use

Presentation
Anti-PAX-8 is a rabbit polyclonal antibody, diluted in phosphate buffered saline, pH 7.4, with protein base, and preserved with sodium azide.

Applications
This protein is a member of the paired box (PAX) family of transcription factors. Members of this gene family typically encode proteins which contain a paired box domain, an octapeptide, and a paired-type homeodomain. This nuclear protein is involved in thyroid follicular cell development and expression of thyroid-specific genes. Mutations in this gene have been associated with thyroid dysgenesis, thyroid follicular carcinomas and atypical thyroid adenomas.

PAX-8 is expressed in the thyroid (and associated carcinomas), non-ciliated mucosal cells of the fallopian tubes and simple ovarian inclusion cysts, but not normal ovarian surface epithelial cells. PAX-8 is expressed in a high percentage of ovarian serous, endometrioid, and clear cell carcinomas, but only rarely in primary ovarian mucinous adenocarcinomas. Studies have also found PAX-8 experession in renal tubules as well as renal carcinoma, nephroblastoma and seminoma. Most recently a study by Tong et al. showed that 98% of clear cell RCCs, 90% of papillary RCCs, and 95% of oncocytomas were positive for PAX-8, frequencies which are similar or better than for PAX-2. Therefore, PAX-8 may be used as an additional immunohistochemical marker for renal epithelial tumors. Normal lung and lung carcinomas do not express PAX-8. Similarly, the absence of expression of PAX-8 in breast and other non-GYN carcinomas other than those primary to the thyroid indicates that PAX-8 is an important new marker of ovarian cancer and a useful marker for the differential diagnoses in lung and neck tumors, or tumors at distant sites where primary lung carcinoma or thyroid carcinoma are possibilities. PAX-8, combined with organ system-specific markers such as uroplakin, mammaglobin, and TTF-1 can be a very useful panel to determine the primary site of invasive micropapillary carcinomas of ovary from bladder, lung, and breast.

Reactivity	Paraffin, frozen
Control	Ovarian carcinoma (non-mucinous carcinoma), thyroid carcinomas
Visualization	Nuclear
Stability	Up to 36 months; store at 2-8°C

Antibody color does not affect performance

Description	Cat. No.	Dilution/Comments
0.1 ml, concentrate	363A-14	1:25 - 1:100*
0.5 ml, concentrate	363A-15	1:25 - 1:100*
1 ml, prediluted	363A-17	Ready to use
7 ml, prediluted	363A-18	Ready to use
Positive control	363S	5 slides/pack

P prediluted C concentrate

Preparation and Pretreatment
1. Cut 3-4 µm section of formalin-fixed paraffin-embedded tissue and place on positively charged slides; dry overnight at 58°C.
2. Deparaffinize, rehydrate, and epitope retrieve; the preferred method is the use of Heat Induced Epitope Retrieval (HIER) techniques using Cell Marque's Trilogy™ in conjunction with a pressure cooker. The preferred method allows for simultaneous deparaffinization, rehydration, and epitope retrieval. Upon completion, rinse with 5 changes of distilled or deionized water.
3. If using HRP detection system, place slides in peroxide block for 10 minutes; rinse. If using AP detection system, omit this step.

Recommended Protocol for Staining at Room Temperature Using CytoScan™ BSA Detection System
1. Apply the antibody and incubate for 30 - 60 minutes; rinse.
2. Apply the link and incubate for 10 minutes; rinse.
3. Apply the label and incubate for 10 minutes; rinse.
4. Apply ample amount of chromogen and incubate for 1 - 10 minutes; rinse.
5. Dehydrate and coverslip.

Recommended Protocol for Staining at Room Temperature Using PolyScan™ Polymer Detection System
1. Apply the antibody and incubate for 30 - 60 minutes; rinse.
2. Apply the PolyScan™ Polymer Rabbit/Mouse Detection System for 30 minutes; rinse.
3. Apply ample amount of chromogen and incubate for 1 - 10 minutes; rinse.
4. Dehydrate and coverslip.

*The dilutions set forth above are estimates; actual results may differ because of variability in methods and protocols. Validation of antibody performance/protocol is the responsibility of the end user.

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References

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