Anti-PSA (Prostate Specific Antigen)
DIA-PSA / Mouse monoclonal anti-PSA marker
Clone HAM18

Product Information

Catalog No.:	**DIA-PSA** (100µl)
Clone:	HAM18
Isotype:	Mouse IgG1/λ
Specificity:	PSA / KLK3
Immunogen:	Recombinant peptide
Physical State:	Lyophilized powder
Reactive Species:	Human
Positive Control:	Prostate carcinoma
Visualization:	cytoplasmic

Reconstitution:	DIA-PSA restore to 100 µl. Reconstitute with sterile distilled water by gentle shaking for 10 minutes.
Presentation:	In PBS with 2% BSA, 0.05% NaN3, pH 7.4. Antibody purified from culture supernatant.
Applications:	Immunohistochemistry (IHC), standard formalin-fixed paraffin sections
Dilutions:	**1:100 - 1:800 IHC-P** (General recommendation, validation of antibody performance/protocol is the end user's responsibility. Positive/negative controls should be run simultaneously with patient specimen. Interpretation must be made by a qualified pathologist within the context of patient's clinical history/other diagnostic tests.)

Reactivity

HAM18 has been developed for detection of prostate specific antigen (PSA) in routine formalin-fixed paraffin-embedded prostate tissue specimen to be used in brightfield immunohistochemistry but also for multicolor immunofluorescence. HAM18 has been tested for sensitivity, specificity and prognostic significance on more than 20.000 tissues. Accordingly, HAM18 stands for being the best validated anti-PSA clone. For details review **PSA-antibody.com**.

Prostate Cancer is the most common cancer in men and PSA is the most important target for management of patients diagnosed with prostate cancer. PSA is a protease exclusively produced in prostate epithelial cells and secreted into the seminal fluid. Moreover, PSA reaches the blood stream and PSA levels have been shown to be proportional to quantity of prostate epithelial cells. Therefore serum analysis has developed the most commonly used method to detect PSA for prostate cancer prevention and to monitor response to therapy. Moreover, PSA immunohistochemistry is an important and common method for routine pathological diagnosis since it allows analysis of cellular expression profiles in prostate cancer.

In diagnostic routine, PSA (HAM18) immunohistochemistry can be used in the following applications

- Carcinoma of unknown origin: Rule out origin from a prostate cancer.
- Bladder tumor of male patients without unequivocal urothelial precursor lesion suggesting urothelial origin: Rule out origin from a prostate cancer.
- Advanced high-grade prostate cancer with rather low serum PSA levels: Low PSA expression in poorly differentiated cancer suggest that serum PSA levels may "underestimate" total tumor mass of the patient.

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. 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. To detect antibody, follow the instructions provided with the particular visualization system. The antibody is suited for immunohistochemical staining using automated platforms. Use the antibody at 1:100 up to 1:800 dilution.

Storage and Stability

Store the lyophilized antibody at 2-8°C. For long term storage freeze at -20°C, thus the antibody is stable for at least one year. As reconstituted liquid store at 2-8°C short term (several weeks). Avoid repeated freeze / thaw cycles.

Safety Notes

The material contains 0.05% 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.

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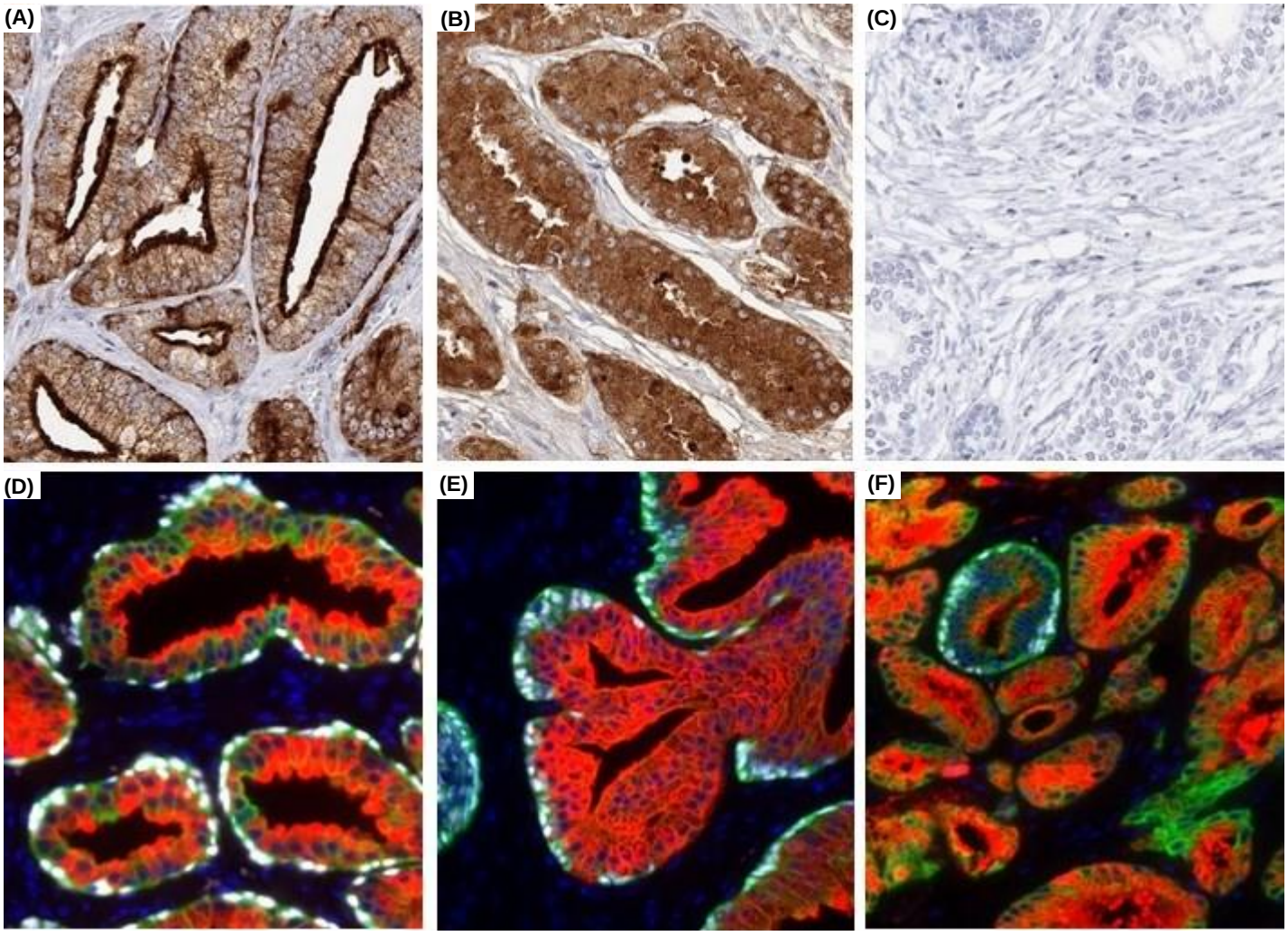
Figures

Immunohistochemistry of human PSA in routine formalin-fixed paraffin-embedded prostate cancer tissue with antibody clone HAM18

A: Strong apical predominance of PSA staining in a prostate cancer
B: Intense apical and cytoplasmic PSA staining in a prostate cancer
C: Loss of PSA staining pattern in a prostate cancer

D-F: Multiplex-IHC: Prostate gland - PSA (red), basal cells - p63 (white), epithelial cells - AE1-3 (green)
D: Normal prostate
E: Normal prostate, higher magnification
F: Prostate tumor: Absence of basal cells (white) in tumor tissue, but one normal gland displayed (white)



Reference for clone HAM18

1. Bonk S et al. Prognostic and diagnostic role of PSA immunohistochemistry: A tissue microarray study on 21,000 normal and cancerous tissues. *Oncotarget* 2019 (10): 5439-5453.

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