



## HISTOPRIME<sup>®</sup>

**CatNo E043**

## PAP

Lot: See Label

Storage: +2 to +8 °C

Exp. Date: See Label

## Monoclonal Antibody against Prostate specific acid phosphatase

### Specificity

Human prostate-specific acid phosphatase (PAP, EC 3.1.2.2) is an isoenzyme of acid phosphatase and catalyzes the hydrolysis of phosphoric acid esters. PAP is present in large amounts in prostatic gland tissue and seminal fluid. Other isoforms of the enzyme are found in erythrocytes, leukocytes, kidneys, bone, spleen, pancreas, and liver. PAP is an enzyme with a molecular weight of approximately 100 kD, consisting of two identical sub-enzymes of 48 kD. PAP is present in large amounts in the epithelial cells of the prostate gland and its excretory ducts. In smaller amounts, PAP also appears to be present in pancreatic islets, parietal cells of the stomach, renal tubules, ureteral epithelium, and male anal glands and scattered cells in the rectum (2,3). The enzyme is also detected in benign and malignant prostate tumors.

### Contents

Reagents sufficient for about 50-100 tissue sections  
1 dropper bottle **HISTOPRIME<sup>®</sup> PAP** (Bottle, 5 ml)

### Application

The monoclonal antibody E043 (PAP-29) selectively recognizes prostate-specific acid phosphatase. It reacts with acid phosphatase-expressing normal prostate epithelial cells as well as with their primary and metastatic neoplasms. However, the antibody does not react with prostate specific antigen (PSA). It makes sense to use an antibody against PSA (e.g. LINARIS CatNo E040) in parallel for the detection of prostate tumors and their metastases.

### Fusion Partners

BALB/C mice were immunized with purified human prostate-specific acid phosphatase. Spleen cells from these animals were fused with mouse myeloma cells. The resulting hybridoma cells were used to obtain ascites in mice.

E043-230109-1/2



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### Characterization

<b>Antigen</b>	Purified Prostate Specific Acid Phosphatase (PAP)
<b>Specificity</b>	PAP expressing cells
<b>Abnormal Tissues</b>	Primary and metastatic neoplasms of the prostate gland
<b>Clone</b>	PAP-29
<b>Isotype</b>	Mouse IgG2a
<b>Pretreatment</b>	Pretreatment with proteolytic enzymes not required
<b>Incubation Period</b>	1 hour by room temperature
<b>Control Tissue</b>	Prostate
<b>Application</b>	Ready-to-use in PBS, BSA, NaN <sub>3</sub> (0.09%) pH 7.4(*) suitable on cryostat sections and on formalin-fixed, paraffin-embedded tissue sections.
<b>Recommended Secondary Reagents</b>	<b>Alkaline Phosphatase</b> Vectastain <sup>®</sup> ABC Mouse IgG (Vector CatNo AK-5002) and Substrate-Kit e.g. Vector <sup>®</sup> Red (Vector CatNo SK-5100). <b>Peroxidase</b> Vectastain <sup>®</sup> ABC-Elite Mouse IgG (Vector CatNo PK-6102) and Peroxidase Substrate-Kit e.g. DAB (LINARIS CatNo E108) or HistoGreen (LINARIS CatNo E109).

### References

1. Luchter-Wasyli, E. and Ostrowski, W. (1974) Biochim. Biophys. Acta 265; 349ff.
2. Hains, A. et al. (1989) Br. J. Cancer 60; 887ff.
3. Kamoshida, S. and Tsutsumi Y. (1990) Hum. Pathol. 21; 1108ff.

**Differential identification is aided by the results from a panel of antibodies. Interpretation must be made within the context of the patient's clinical history and other diagnostics tests by a qualified pathologist.**

**(\*)Note**                      **E043 contains Sodium Azide; take adequate precautions!**

E043-230109-2/2

**For Research use only. Not for use in diagnostic procedure**

