

# **HISTOPRIME®**

## CatNo E042

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## Monoclonal Antibody against Alpha-fetoprotein

**Specificity** 

**AFP** 

Alpha-fetoprotein (AFP) is a fetal globulin with a molecular weight of approximately 70 kDa. AFP is synthesized in fetuses in relatively high concentrations in the embryonic yolk sac, gastrointestinal tract and liver. During normal pregnancy, it is detectable in both maternal and fetal serum. Shortly after birth, AFP levels drop to a very low level (20ng/ml). Increasing AFP levels in adults (outside of pregnancy) are usually associated with hepatocellular carcinoma or yolk sac tumor (testicular or pineal organ). The increasing AFP synthesis rate of malignant hepatic cells is interpreted as a return of the cells to the more active fetal stage.

**Contents** 

Reagents sufficient for about 50-100 tissue sections 1 dropper bottle **HISTOPRIME® AFP** (Bottle, 5 ml)

**Application** 

The AFP monoclonal antibody E042 recognizes the antigenic determinants of the protein both in the fetal yolk sac and in fetal liver, and during malignant transformation in liver tissue. AFP detection in the liver can be considered a marker of hepatocellular carcinoma. In tumors of the testis, it may serve to differentiate them from seminomas, which usually do not express AFP.

**Fusion Partners** 

Spleen cells from immunized mice were fused with mouse myeloma cells (P3X63-Ag8,653). Purification of the isolated monoclonal antibodies was performed by DEAE chromatography.

E042-230109-1/2



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#### Characterization

Purified alpha-fetoprotein from umbilical cord blood **Antigen** 

Human alpha-fetoprotein **Specificity** 

No cross-reaction with HSA, CEA, HCG, ferritin and PSA

Primary hepatocellular carcinoma, yolk sac tumors. **Abnormal Tissues** 

F1-6P<sub>2</sub>A<sub>8</sub>-P<sub>2</sub>B<sub>9</sub>A<sub>9</sub> Clone

Mouse IgG1 Isotype

Pretreatment with proteolytic enzymes not required **Pretreatment** 

1 hour by room temperature Incubation Period

Fetal liver or yolk sac **Control Tissue** 

Ready-to-use in PBS, BSA, NaN<sub>3</sub> (0.09%) pH 7.4(\*) suitable on cryostat sections and on **Application** 

formalin-fixed, paraffin-embedded tissue sections.

Alkaline Phosphatase Vectastain® ABC Mouse IgG (Vector CatNo AK-5002) and Substrate-Recommended

Kit e.g. Vector® Red (Vector CatNo SK-5100).

Secondary Peroxidase Vectastain® ABC-Elite Mouse IgG (Vector CatNo PK-6102) and Peroxidase Reagents Substrate-Kit e.g. DAB (LINARIS CatNo E108) or HistoGreen (LINARIS CatNo E109).

References

1. Mann K., Lamerz R., Löhrs U., Nathraht W., Rattenhuber U., und H. J. Karl (1980) HCG und AFP bei Keimzelltumoren des Hodens: Vergleich von Serum- und Gewebsbefunden. In: CEA und andere Tumormarker, Ein Symposiumband. Uhlenbruck und Wintzer Herausa, TumorDiagnostik Verlag (Leonberg) S. 379-388

2. B. Norgaard-Pedersen (1980) Die klinische Anwendung von Alpha-Foetoprotein und Human Choriongonadotropin in germinalen Zelltumoren. In: CEA und andere Tumormarker, Ein Symposiumband. Uhlenbruck und Wintzer Herausg. TumorDiagnostik Verlag (Leonberg) Abstract S.389.

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 E042 contains Sodium Azide; take adequate precautions!

E042-230109-2/2 For Research use only. Not for use in diagnostic procedure





