

**Anti Alpha-fetoprotein (human, AFP)  
Mouse monoclonal antibody**Subclass: IgG<sub>1</sub>/k

|                     |   |
|---------------------|---|
| PRODUCT NO.         | <b>HYB 097-08</b>   |
| PRESENTATION        | Preparation: Protein-A/G purified<br>Content: Available in 200 µL and 1 mL, 1 mg/mL<br>Solvent: 0.01 M phosphate buffer, pH 7.4, with 0.5 M NaCl and 15mM sodium azide<br>Storage: In the dark at 4-8°C   |
| ANTIGEN             | Alpha-fetoprotein (AFP) is a serum protein produced by hepatocytes. AFP levels are used as a tumor marker for hepatomas and germ cell tumors, and the serum concentration has prognostic significance in other diseases. Levels of AFP is 0.6-9.3 kIU/L in blood from normal individuals under the age of 40 (2). Concentrations raise with age and during pregnancy.<br>AFP consists of one single polypeptide chain of 590 aminoacids with MW 65 kDa (3). |
| IMMUNOGEN           | Human alpha-fetoprotein isolated from amniotic fluid  |
| SPECIFICITY         | HYB 097-08 is specific for human AFP. Cross-reactivity to other species or similar molecules have not been investigated.  |
| EPITOPE SPECIFICITY | Epitope belongs to group IV (1) different from all other HYB 097 clones   |
| REACTIVITY          | K <sub>a</sub> =12, determined as concentration of antibody giving half-maximal binding to hepatoma-AFP bound to solid phase (unit: 108 L/mol). When used as detection antibody in sandwich ELISA, HYB 097-08 showed stable detection of AFP in human serum and plasma samples.   |
| CULTURE MEDIUM      | RPMI 1640 with 10% fetal calf serum   |
| FUSION PARTNER      | X63-Ag8.653.  |
| IMMUNIZATION        | Female CF1 x BALB/c mice immunized i.p. with immunogen adsorbed onto Al(OH) <sub>3</sub>  |

## APPLICATION

| Method               | Usability      | Dilution guideline | References |
|----------------------|----------------|--------------------|------------|
| ELISA                | Yes            | 1:40,000           | 2          |
| Immunoblotting       | Not determined |                    |            |
| Immunohistochemistry | Not determined |                    |            |

The dilution guideline for ELISA is based on sandwich ELISA in combination with a polyclonal antibody against the antigen. Users should determine the optimal dilutions for their own purpose.

## REFERENCES

- Christiansen M, Yazova AK, Karamova ER, Andre'ev AV, Goussev AI, Mortensen V, Pettersson K, Koch C, Norgaard-Pedersen B, Abelev GI (1994) Epitopes of Human Alpha-Fetoprotein. *J Tumor Marker Oncol* 9:57-68.
- Christiansen M, Hogdall CK, Andersen JR, Norgaard-Pedersen B (2001) Alpha-fetoprotein in plasma and serum of healthy adults: preanalytical, analytical and biological sources of variation and construction of age-dependent reference intervals. *Scand J Clin Lab Invest* 60:205-215.
- Gitting D (1975) Normal biology of alpha-fetoprotein. *Ann N Y Acad Sci* 259:7-16.
- Norgaard-Pedersen B, Larsen SO, Arends J, Svenstrup B, Tabor A (1990) Maternal serum markers in screening for Down syndrome. *Clin Genet* 37:35-43.

## CONDITIONS

All products are supplied on the understanding that they are for in vitro use only. The information and product are offered without guarantee as the ultimate conditions of use are beyond our control. The animals from which this product was derived have not been exposed to or inoculated with any livestock or poultry disease agents exotic to the United States or Western Europe, and did not originate from facilities where work with exotic disease agents affecting livestock or avian species is carried out.