

#### DESCRIPTION

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|---------------------------|--|
| <b>Species Reactivity</b> | Human  |
| <b>Specificity</b>        | Detects human $\alpha$ -Fetoprotein in direct ELISAs.  |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 189506  |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant   |
| <b>Immunogen</b>          | Human umbilical cord serum-derived $\alpha$ -Fetoprotein   |
| <b>Conjugate</b>          | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm  |
| <b>Formulation</b>        | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

|   | Recommended Concentration            | Sample  |
|---|--------------------------------------|---|
| <b>Intracellular Staining by Flow Cytometry</b> | 0.25-1 $\mu$ g/10 <sup>6</sup> cells | HepG2 human hepatocellular carcinoma cell line fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005) |

#### PREPARATION AND STORAGE

|                                |  |
|--------------------------------|--|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.                                  |
| <b>Stability &amp; Storage</b> | <b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul> |

#### BACKGROUND

AFP ( $\alpha$ -Fetoprotein) is a 69-73 kDa member of the ALB/AFP/VDB family of proteins.  $\alpha$ -Fetoprotein is a major plasma protein in the fetus. Its concentration is normally low in the adult except when produced by certain tumors. It is secreted by fetal liver and serves as a carrier molecule for phytoestrogens, heavy metals (Cu and Ni), estrogen and fatty acids. Mature human AFP is 591 amino acids (aa) in length. It contains three albumin domains (aa 19-210, 211-402 and 403-601), plus 15 intrachain disulfide bonds. Mature human AFP shares approximately 66% aa identity with mouse AFP.

#### References:

1. Matsumura, M. *et al.* (2001) *Hepatology*. **20**:84
2. Deutsch, H.F. *et al.* (2000) *Tumor Biol.* **21**:267

#### PRODUCT SPECIFIC NOTICES

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