

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects purified human $\alpha$ -Fetoprotein/AFP in Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 214107
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Human umbilical cord serum-derived $\alpha$ -Fetoprotein/AFP
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ m filtered solution in PBS.

## 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>Western Blot</b>	1 $\mu$ g/mL	Human $\alpha$ -Fetoprotein/AFP under non-reducing conditions only

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</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