

**AFP Antibody**  
**Catalog # ASC11178****Specification**

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**AFP Antibody - Product Information**

|                   |                                                                                                                                                                                              |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application       | WB, IHC, IF                                                                                                                                                                                  |
| Primary Accession | <a href="#">P02771</a>                                                                                                                                                                       |
| Other Accession   | <a href="#">NP_001125</a> , <a href="#">4501989</a>                                                                                                                                          |
| Reactivity        | Human, Mouse, Rat                                                                                                                                                                            |
| Host              | Rabbit                                                                                                                                                                                       |
| Clonality         | Polyclonal                                                                                                                                                                                   |
| Isotype           | IgG                                                                                                                                                                                          |
| Application Notes | AFP antibody can be used for detection of AFP by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 10 µg/mL. For immunofluorescence start at 20 µg/mL. |

**AFP Antibody - Additional Information**

|                    |     |
|--------------------|-----|
| Gene ID            | 174 |
| Target/Specificity |     |
| AFP;               |     |

**Reconstitution & Storage**

AFP antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

AFP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**AFP Antibody - Protein Information****Name** AFP**Synonyms** HPAFP**Function**

Binds copper, nickel, and fatty acids as well as, and bilirubin less well than, serum albumin. Only a small percentage (less than 2%) of the human AFP shows estrogen-binding properties.

**Cellular Location**

Secreted.

**Tissue Location**

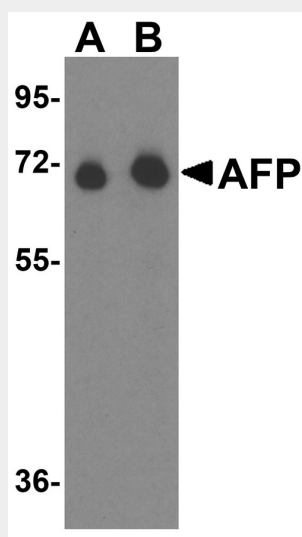
Plasma. Synthesized by the fetal liver and yolk sac

## AFP Antibody - Protocols

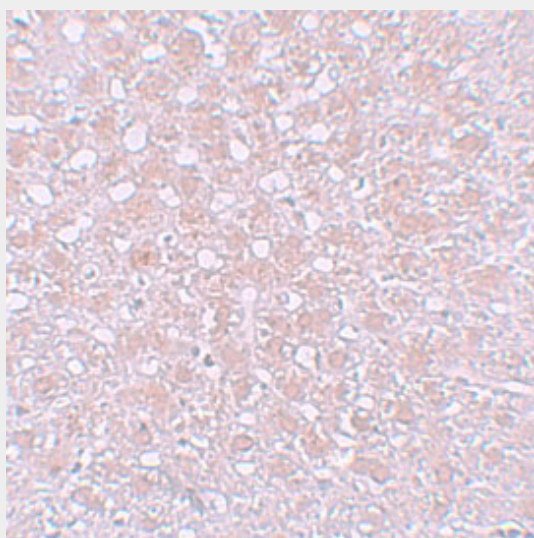
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

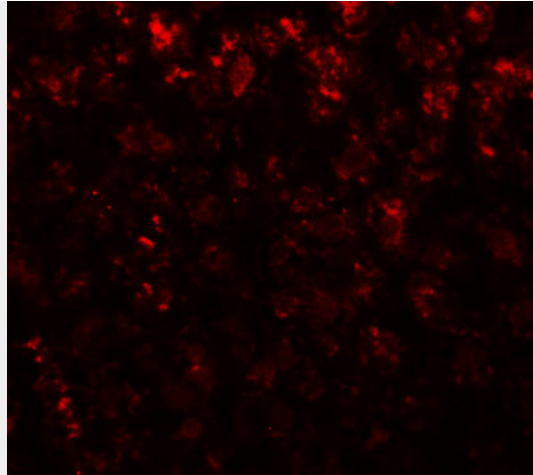
## AFP Antibody - Images



Western blot analysis of AFP in fetal human liver tissue lysate with AFP antibody at (A) 1  $\mu\text{g/mL}$  and (B) 2  $\mu\text{g/mL}$ .



Immunohistochemistry of AFP in rat liver tissue with AFP antibody at 10  $\mu\text{g/mL}$ .



Immunofluorescence of AFP in rat liver tissue with AFP antibody at 20 µg/mL.

### **AFP Antibody - Background**

AFP Antibody: Alpha-fetoprotein (AFP) is a major plasma protein produced by the yolk sac and the liver during fetal development. In adults, AFP expression is often associated with hepatoma or teratoma. However, hereditary persistence of AFP may also be found in individuals with no obvious pathology. AFP is thought to be the fetal counterpart of serum albumin, and the AFP and albumin genes are present in tandem in the same transcriptional orientation on chromosome 4. AFP is found in monomeric as well as dimeric and trimeric forms, and binds copper, nickel, fatty acids and bilirubin. AFP levels in amniotic fluid is used to measure renal loss of protein to screen for spina bifida and anencephaly.

### **AFP Antibody - References**

Lafuste P, Robert B, Mondon F, et al. Alpha-fetoprotein gene expression in early and full-term human trophoblast. *Placenta* 2002; 23:600-12.

Walhof CM, Van Sonderen L, Voute PA, et al. Half-life of alpha-fetoprotein in patients with a teratoma, endodermal sinus tumor, or hepatoblastoma. *Pediatr. Hematol. Oncol.* 1988; 5:217-27.

Nishio H, Heiskanen M, Palotie A, et al. Tandem arrangement of the human serum albumin multigene family in the sub-centromeric region of 4q: evolution and chromosomal direction of transcription. *J. Mol. Biol.* 1996; 259:113-9.

Deutsch HF. Chemistry and biology of alpha-fetoprotein. *Adv. Cancer Res.* 1991; 56:253-312