ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

LIFE TECH Life Technologies™ Your Molecular & Cell Technology Partner

Human Alpha Fetoprotein (AFP) antibodies

□ Cat. # AFP11-M	**Mouse Monoclonal** Anti-Human AFP, clone 1	**SIZE**: 1 mg
□ Cat. # AFP12-M	**Mouse Monoclonal** Anti-Human AFP, clone 2	**SIZE**: 1 mg
□ Cat. # AFP11-C	Human AFP control protein for Western	**SIZE**: 100 ul

AFP is a glycoprotein with a mol wt of ~65-70 kDa. It has approx. 4% carbohydrates. During fetal development, AFP is secreted at high levels and then drops to very low levels in adult life. AFP reappears in serum at high levels in malignant diseases of hepatocellular, testicular, nonseminomatosus origin, and occasionally other entodermal origin. AFP may be slightly elevated or persisted in patients with large hepatic metastases or viral hepatitis. AFP measurement is widely accepted as tumor marker and for monitoring the therapeutic effectiveness of hepatocellular and other cancer.

AFP concentration is also high in the amniotic fluid during early stages of pregnancy. AFP levels decline in the later part of the pregnancy. Elevated amniotic AFP levels are indicative of open neural tube defects (spina bifida or anencephaly) and in several fetal hemolytic diseases, omphlocele, esophageal artresia, congenital nephrosis, intrauterine death or fetal bleeding into the amniotic fluid. For diagnostic purpose, ultrasonography and acetylcholine esterase measurement should be performed in conjunction with AFP.

Source of Antigen and Antibodies

Antigen	Highly purified human AFP protien (#AFP15-N)
Ab Host/type	Mouse, monoclonal IgG (#AFP11-M) supplied purified IgG
2-ab	**Goat Anti-mouse IgG-HRP conjugate Cat # 40120 (AP, biotin, FITC conjugates also available)**
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control

Human AFP was purified from cord blood. as His-tag protein and purified (>95%). For Western blot +ve control (**Cat # AFP11-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **AFp11**-C for good visibility with antibody Cat # **AFP11-M or AFP12-M**. Store at –20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **AFP11**-C solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly.

All human derived material has been tested negative for HIV, HCV, and HbSAg. Nevertheless, all precautions should be taken and samples be treated as potentially hazardous.

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG
□ 100 ug/100ul □ solution □ lyophilized powder
Supplied in **Buffer**: PBS+0.05% azide
Reconstitute powder in PBS at 1mg/ml

Storage
Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..
Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Western Blotting (1:500-:1:2K) using ECL technique.

ELISA: Control peptide/protein can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (1:10-50K for neat serum and 0.5-1 ug/ml for affinity pure).

Histochemistry & Immunofluorescence: Not tested. We recommend the use of affinity purified antibody at 2-20 ug/ml in paraformaldehyde fixed sections of tissues.

Specificity & Cross-reactivity

The antibodies are specific for human AFP with no reactivity to other serum proteins. Antibody cross-reactivity in various species has not been studied. The AFP11-C control protein can be used for western or #AFP16-N for ELISA.

References: Ruoslahti E et al (1974) Transplant Rev. 20, 30-60; Silver HKB et al (1973) PNAS 70, 526-530; Brauenstein GD et al (1973) Cancer 31, 1065-1068; McIntire KR et al (1975) Cancer Res. 35, 991-996; Silver HKB et al (1974) Cancer Res. 34, 244-247; Purves LR et al (1973) Africa Gann Monograph 14, 51-66; Bosl GJ et al (1981) Cancer 47, 328

*This product is for In vitro research use only.

Related material available from ADI
ELISA kits for human AFP.
AFP11-12-C 90924A

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