AFP (39): sc-130302

**BACKGROUND**

α-fetoprotein (AFP) is expressed in fetal liver at varying levels throughout development and is present only in trace amounts in normal adult tissues. AFP can be detected at abnormally high concentrations in hepatocellular carcinomas as well as in the plasma and ascitic fluid of adults with hepatoma. High AFP concentrations have been correlated with tumor cell growth, indicating that AFP can serve as a tumor marker. AFP binds copper, nickel and fatty acids, and in some cases may bind serum albumin or estrogen. It has been demonstrated that the AFP promoter is a target for NF-1 (nuclear factor-1), HNF-1 (hepatocyte nuclear factor-1) and C/EBP transcription factors. While HNF-1 binding to the AFP promoter results in AFP expression, NF-1 binding results in a decrease in AFP promoter activity.

**CHROMOSOMAL LOCATION**

Genetic locus: AFP (human) mapping to 4q13.3; Afp (mouse) mapping to 5 E1.

**SOURCE**

AFP (39) is a mouse monoclonal antibody raised against recombinant AFP of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

AFP (39) is available conjugated to agarose (sc-130302 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-130302 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-130302 PE), fluorescein (sc-130302 FITC), Alexa Fluor® 488 (sc-130302 AF488), Alexa Fluor®546 (sc-130302 AF546), Alexa Fluor® 594 (sc-130302 AF594) or Alexa Fluor® 647 (sc-130302 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-130302 AF680) or Alexa Fluor® 790 (sc-130302 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

 AFP (39) is recommended for detection of AFP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1,000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for AFP siRNA (h2): sc-270319, AFP siRNA (m): sc-29649, AFP shRNA Plasmid (h2): sc-270319-SH, AFP shRNA Plasmid (m): sc-29649-SH, AFP shRNA (h2) Lentiviral Particles: sc-270319-V and AFP shRNA (m) Lentiviral Particles: sc-29649-V.

Molecular Weight of AFP: 68 kDa.

Positive Controls: A549 cell lysate: sc-2413, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

AFP (39): Western blot analysis of AFP expression in HeLa (A), A549 (B) and Jurkat (C) whole cell lysates.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.