Datasheet for ABIN3043730

anti-alpha Fetoprotein antibody (AA 378-609)

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Overview

Quantity:	100 µg
Target:	alpha Fetoprotein (AFP)
Binding Specificity:	AA 378-609
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This alpha Fetoprotein antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Purpose:	Anti-alpha 1 Fetoprotein/AFP Antibody Picoband®
Immunogen:	E.coli-derived human AFP recombinant protein (Position: Q378-V609). Human AFP shares 71% and 73% amino acid (aa) sequences identity with mouse and rat AFP, respectively.
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins
Characteristics:	Anti-alpha 1 Fetoprotein/AFP Antibody Picoband® (ABIN3043730). Tested in IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Purification:	Immunogen affinity purified.

Target Details

Target:	alpha Fetoprotein (AFP)
Alternative Name:	AFP (AFP Products)
Background:	Synonyms: Alpha-fetoprotein,Alpha-1-fetoprotein,Alpha-fetoglobulin,AFP,HPAFP, Tissue Specificity: Plasma. Synthesized by the fetal liver and yolk sac. Background: AFP, also called Alpha-fetoprotein, alpha-fetoprotein, is a protein that in humans is encoded by the AFP gene. It is mapped to 4q13.3. The level of AFP in amniotic fluid is used to measure renal loss of protein to screen for spina bifida and anencephaly. In rodents AFP binds estradiol to prevent the transport of this hormone across the placenta to the fetus. The main function of this is to prevent the virilization of female fetuses. Moreover, it has an important role as a diagnostic marker, especially in certain tumors and liver diseases of childhood. AFP is also used to test the potential usefulness of plasma alpha fetoprotein determination as a diagnostic marker in biliary atresia, hepatitis, and yolk sac derived tumours. Sequence Similarities: Belongs to the ALB/AFP/VDB family.
Molecular Weight:	69 kDa
Gene ID:	174
UniProt:	P02771
Pathways:	C21-Steroid Hormone Metabolic Process

Application Details

Application Notes:	Western blot, 0.1-0.5 µg/mL, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/mL, Human 1. Carter CS (2002). "Neuroendocrinology of sexual behavior in the female". In Becker JB. Behavioral Endocrinology. Cambridge, Mass: MIT Press. pp.88-89. ISBN 0-262-52321-3 2. Bader D, Riskin A, Vafsi O, Tamir A, Peskin B, Israel N, Merksamer R, Dar H, David M (November 2004). "Alpha-fetoprotein in the early neonatal period--a large study and review of the literature". Clin. Chim. Acta 349 (1-2): 15-23. 3. Blair JI, Carachi R, Gupta R, Sim FG, McAllister EJ, Weston R (April 1987). "Plasma alpha fetoprotein reference ranges in infancy: effect of prematurity". Arch. Dis. Child. 62 (4): 362-9.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C,-20 °C
Storage Comment:	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Publications

Product cited in:

Jeng, Jeng, Jeng, Sheen, Li, Lu, Chang: "Tropism of liver epithelial cells toward hepatocellular carcinoma in vitro and in vivo with altering gene expression of cancer stem cells." in: **American journal of surgery**, Vol. 215, Issue 4, pp. 735-743, (2017) (PubMed).

Winkler, Hempel, Brückner, Mallek, Weise, Liehr, Tautenhahn, Bartels, Christ: "Mouse white adipose tissue-derived mesenchymal stem cells gain pericentral and periportal hepatocyte features after differentiation in vitro, which are preserved in vivo after hepatic transplantation." in: **Acta physiologica (Oxford, England)**, Vol. 215, Issue 2, pp. 89-104, (2016) (PubMed).

Li, Wu, Liu: "An immune sandwich assay of carcinoembryonic antigen based on the joint use of upconversion phosphors and magnetic beads." in: **The Analyst**, Vol. 140, Issue 12, pp. 4083-8, (2015) (PubMed).

Yan, Zhu, Sun, Zhang, Li, Sun, Li, Qian, Zhu, Xu: "Extracellular regulated protein kinases 1/2 phosphorylation is required for hepatic differentiation of human umbilical cord-derived mesenchymal stem cells." in: **Experimental biology and medicine (Maywood, N.J.)**, Vol. 240, Issue 4, pp. 534-45, (2015) (PubMed).

Wang, Xu, Zhou, Zhong, Wen, Yu, Chen, Shen, Chen, She, Jiang, Miao, Wei: "The viral

Publications

oncoprotein HBx of Hepatitis B virus promotes the growth of hepatocellular carcinoma through cooperating with the cellular oncoprotein RMP." in: **International journal of biological sciences**, Vol. 10, Issue 10, pp. 1181-92, (2014) (PubMed).

There are more publications referencing this product on: Product page

Images

Western Blotting

Image 1. Anti-AFP Picoband antibody, All lanes: Anti AFP at 0.5ug/ml WB: Human Recombinant AFP Protein 0.5ng Predicted bind size: 36KD Observed bind size: 36KD

Western Blotting

Image 2. Anti-AFP Picoband antibody, All lanes: Anti AFP at 0.5ug/ml WB: HEPG2 Whole Cell Lysate at 40ug Predicted bind size: 69KD Observed bind size: 69KD