GENE BIO SOLUTION

ALPHA-1-FETOPROTEIN (AFP)

Format	Catalog no.	Pack size	Dilution
Concentrated	GB028A	0.1 mL	1:100
Prediluted	GB028AA	6.0 mL	Ready to use

PRODUCT DESCRIPTION -

This antibody interacts with human Alpha-1-Fetoprotein (AFP). The Alpha-1-Fetoprotein antibody interacts with germ-cell cancers, gonadal malignancies, and hepatocellular carcinoma. Neoplasms frequently linked to Alpha-1-Fetoprotein (AFP) synthesis include hepatocellular carcinomas and some germ cell malignancies, particularly yolk sac tumors. Uncommon cancers of visceral origin may also be linked to the synthesis of Alpha-1-Fetoprotein (AFP). Research suggests that in hepatocellular carcinoma, the production of Alpha-1-Fetoprotein (AFP) typically signifies malignancy inside a hepatocellular nodule and the hepatocytic origin of the malignancy. Contaminating antibodies have been eliminated through solid-phase absorption utilizing human plasma proteins.

INTENDED USE -

Alpha-1-Fetoprotein (AFP) is a rabbit polyclonal antibody designed for laboratory application in the qualitative detection of AFP protein using immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence must be supplemented by morphological studies utilizing appropriate controls and assessed in conjunction with the patient's clinical history and other diagnostic tests by a skilled pathologist.

SUMMARY AND EXPLANATION -

Overexpression of alpha-1-fetoprotein (AFP) is frequently linked to hepatocellular carcinomas (HCC) and germ cell cancers, particularly yolk sac tumors. Increased AFP is linked to oncogenic effects and may serve as a valuable prognostic indicator for survival, advanced disease stage, and metastasis. A reduction in AFP levels has been demonstrated to predict responsiveness to oxaliplatin-based chemotherapy and survival outcomes. The Alpha1-fetoprotein (AFP) antibody interacts with AFP present in hepatocellular carcinoma (HCC), germ cell cancers, and extrahepatic malignancies.

PRINCIPLE OF PROCEDURE -

Antigen identification in tissues and cells is a multi-phase immunohistochemistry procedure. The first step attaches the primary antibody to its designated epitope. Following the tagging of the antigen with a primary antibody, either a one-step or two-step detection method may be employed. A one-step procedure will utilize a polymer tagged with an enzyme that binds to the main antibody. A two-step approach will involve the addition of a linker antibody to connect with the main antibody. An enzyme-conjugated polymer is subsequently introduced to attach to the linker antibody. The detection of bound antibodies is demonstrated by a colorimetric process.

SOURCE - Rabbit polyclonal

SPECIES REACTIVITY - Human; others not tested

CLONE- N/A

ISOTYPE - N/A

PROTEIN CONCENTRATION - Lot specific Ig concentration is not available.

EPITOPE/ANTIGEN - AFP

CELLULAR LOCALISATION - Cytoplasmic

POSITIVE TISSUE CONTROL - Hepatocytes of fetal liver or hepatoma

KNOWN APPLICATIONS - Immunohistochemistry
30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95°C followed by cooling at room temperature for 20 minutes.

SUPPLIED AS - Buffer with protein carrier and preservative

STORAGE AND STABILITY -

Store at 2°C to 8°C. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

Materials required but not provided -

1) Positivetissuecontrol-Hepatocytesoffetalliverorhepatoma

2) Negativecontroltissue(internalorexternal)
3) Microscopeslidesandcoverslips
4) Stainingjarsorbaths
5) Timer
6) Xyleneorxylenesubstitute
7) Ethanolorreagentalcohol
8) Deionizedordistilledwater
9) Heatingequipmentorenzymefortissuepretreatmentstep
10)Detection system
11)Chromogen
12)Wash buffer
13) Hematoxylin
14)Antibody diluents
15)Peroxide block
16)Light microscope
17)Mounting medium

LIMITATIONS-

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.