

PRODUCT INFORMATION



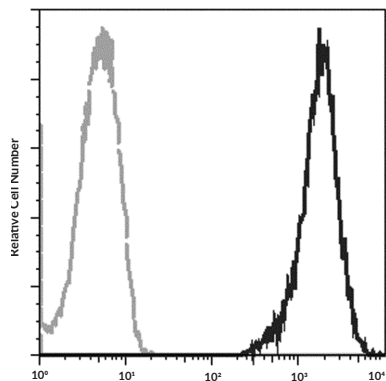
α -Fetoprotein Monoclonal Antibody (APC) (Clone 35)

Item No. 38100

Overview and Properties

Contents:	This vial contains protein A-affinity purified monoclonal antibody
Synonyms:	AFP, FETA, α -Fetoglobulin
Immunogen:	Recombinant human α -fetoprotein
Cross Reactivity:	(+) α -Fetoprotein
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	2-8°C (as supplied)
Stability:	≥ 1 year
Storage Buffer:	PBS with 0.5% BSA and 0.03% ProClin™ 300
Clone:	35
Host:	Mouse
Isotype:	IgG1
Applications:	Flow cytometry (FC); the optimal working concentration/dilution should be determined empirically.

Image



α -Fetoprotein Monoclonal Antibody (APC) (Clone 35) with isotype control

Flow cytometric analysis of Human AFC expressed on HepG2 cells. Cells were treated according to manufacturer's manual (BD Pharmingen™ Cat. No. 554714), stained with APC-conjugated anti-human AFC. The fluorescence histograms were derived from gated events with the forward characteristics of intact cells.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

α -Fetoprotein is a glycoprotein and member of the albuminoid gene family and is involved in extracellular transport, cell proliferation, and the immune response.^{1,2} It is composed of a single polypeptide chain with three domains that form a V shape, the inside of which comprises the ligand-binding domain, and contains 15 disulfide bridges and one or more glycosylation sites depending on the species.³ There are a variety of isoforms and conformational variants of α -fetoprotein, and it contains several major and minor antigenic sites.² α -Fetoprotein is produced by the embryonic yolk sac and fetal liver and levels are highest prenatally.¹ It transports a variety of molecules in the circulation, including fatty acids, bilirubin, estrogens, and certain metal ions and is involved in the regulation of cell proliferation and the immune response in developmental and pathological states.^{1,3} Maternal serum or amniotic fluid levels of α -fetoproteins have been used as preliminary diagnostic markers for Down's syndrome, neural tube defects, and other embryonic abnormalities during pregnancy.^{1,4} In adults, increased levels of serum α -fetoprotein are positively correlated with primary liver cancers, such as hepatoblastoma and hepatocellular carcinoma, germ cell tumors, such as yolk sac tumors, and ataxia telangiectasia.⁴ Cayman's α -Fetoprotein Monoclonal Antibody (Clone 35) is composed of an α -fetoprotein monoclonal antibody conjugated to allophycocyanin and can be used for flow cytometry.

References

1. Gillespie, J.R. and Uversky, V.N. Structure and function of α -fetoprotein: A biophysical overview. *Biochim. Biophys. Acta* **1480(1-2)**, 41-56 (2000).
2. Mizejewski, G.J. Alpha-fetoprotein structure and function: Relevance to isoforms, epitopes, and conformational variants. *Exp Biol Med (Maywood)* **226(5)**, 377-408 (2001).
3. Munson, P.V., Adamik, J., and Butterfield, L.H. Immunomodulatory impact of α -fetoprotein. *Trends Immunol.* **43(6)**, 438-448 (2022).
4. Murray, M.J. and Nicholson, J.C. α -Fetoprotein. *Arch. Dis. Child. Educ. Pract. Ed.* **96(4)**, 141-147 (2011).

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