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Certificate of Analysis and Data Sheet

PURIFIED HUMAN ALPHA FETOPROTEIN (AFP)

Catalog No.
DS-01-0014

Source
Human cord serum

Description

Alpha-fetoprotein (AFP) is a plasma protein that is normally produced by the fetus. It serves as the basis for some valuable tests.

AFP is manufactured principally in the fetus's liver and, also, in the fetal gastrointestinal (GI) tract and the yolk sac, a structure temporarily present during embryonic development.

The level of AFP is typically high in the fetus's blood. It goes down in the baby's blood after birth. And by a year of age, it is virtually undetectable.

During pregnancy, AFP crosses the placenta from the fetal circulation and appears in the mother's blood. The level of AFP in the mother's blood (the maternal serum AFP) provides a screening test for a number of disorders including: Open neural tube defects (anencephaly and spina bifida), and Down syndrome (and other chromosome abnormalities).

AFP production is essentially nil after a year of age. However, it starts up again under the stimulus of some diseases in the liver. It may, for example, be produced by the liver in viral hepatitis and cirrhosis of the liver. AFP is also made by primary liver tumors (hepatomas) and by germ cell tumors (teratocarcinoma and embryonal cell carcinomas). A person's serum AFP level can therefore be used to help detect these conditions and monitor their treatment.

The Molecular Weight of this purified product is 63kD.

Physical Appearance

Sterile filtered clear solution.

Target Species

Human

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Protein Concentrations

About 1.0mg/ml

Formulation

This purified product is supplied in phosphate buffered saline pH7.4 with 0.09% Sodium Azide (NaN₃)

Applications

Table Summary of protein applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA			•	
Western Blotting			•	
Immunoassay	•			
Neutralization			•	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

Storage

Store at 4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing, as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Reference

Mizejewski G. (2001) Alpha-fetoprotein Structure and Function: Relevance to Isoforms, Epitopes, and Conformational Variants. *Experimental Biology and Medicine*, 226:377-408.

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