

Recombinant Human Alpha-Fetoprotein/AFP protein (His Tag)

Catalog Number: PDMH100106

Note: Centrifuge before opening to ensure complete recovery of vial contents.

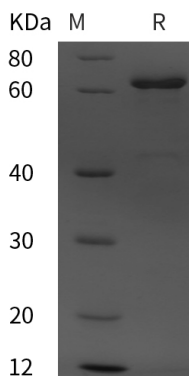
Description

Species	Human
Source	HEK293 Cells-derived Human Alpha-Fetoprotein;AFP protein Met1-Val609, with an C-terminal His
Calculated MW	66.9 kDa
Observed MW	68 kDa
Accession	P02771
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Alpha-fetoprotein (AFP) is classified as a member of the albuminoid gene superfamily consisting of albumin, AFP, vitaminD (Gc) protein, and alpha-albumin. AFP is a glycoprotein of 591 amino acids and a carbohydrate moiety. AFP is a major plasma protein produced by the yolk sac and the liver during fetal development. It is thought to be the fetal form of serum albumin. AFP binds to copper, nickel, fatty acids and bilirubin and is found in monomeric, dimeric and trimeric forms. AFP is one of the several embryo-specific proteins and is a dominant serum protein as early in human embryonic life as one month, when albumin and transferrin are present in relatively small amounts. It is first synthesized in the human by the yolk sac and liver (1-2 months) and subsequently predominantly in the liver. A small amount of AFP is produced by the GI tract of the human conceptus. It has been proved that AFP may reappear in the serum in elevated amounts in adult life in association with normal restorative processes and with malignant growth. Alpha-fetoprotein (AFP) is a specific marker for hepatocellular carcinoma (HCC), teratoblastomas, and neural tube defect (NTD).