



# Recombinant Protein Technical Manual

## Recombinant Human Alpha-Fetoprotein/AFP Protein (His Tag) RPES2395

### Product Data:

**Product SKU:** RPES2395

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P02771

### Protein Information:

**Molecular Mass:** 67.3 kDa

**AP Molecular Mass:** 65-70 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** 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 of PBS, pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Alpha-fetoprotein; Alpha-fetoprotein; Alpha-fetoglobulin; AFP; HPAFP;FETA

## Immunogen Information:

**Sequence:** Arg19-Val609

## 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).