

# Alpha- 1- fetoprotein, AFP

## General:

AFP is a glycoprotein, MW of 70,000. Electrophoretically AFP belongs to the al-pha-1 fraction. The production in the fetus occurs in the gastrointestinal tract, liver and yolk sac. AFP can be detected in serum and amniotic fluid of the fetus. Diaplacentally it reaches the maternal serum and increases during pregnancy. The AFP decreases post partum with a half-life period of approx. 4 days. The AFP concentration in the 2<sup>nd</sup> trimester is used in the detection of neural tube and abdominal wall defects (gastroschisis). AFP-MoM (multiple of median) is the basis for the assessment also in combination with other parameters (triple test), week of gestation 14+0 to 18+6, *see also Down Syndrome*.

Furthermore, the AFP is considered a tumor marker for primary liver cell carcinoma and tumors of the testes and ovaries, *see also Tumor markers*.

The following tests are available:

- **Alpha-1-fetoprotein in serum**

Indication: Prenatal diagnosis of neural tube defect (NTD) and abdominal wall defects, blood collection between 14<sup>th</sup> and 18<sup>th</sup> pregnancy week. Please indicate week of gestation.

Material: 1 ml serum

Stability: 14 days at 2 to 8°C

TAT: same day, FML

Method: ECLIA

Units: IU/ml

Ref.- range: see individual report, please indicate week of gestation.

Note: If the patient is taking multivitamins or dietary supplements containing high dose of Biotin (> 5 mg), the patient should stop taking it for at least 24 hours , before having the blood collection

- **Alpha-1-fetoprotein in serum, tumor marker**

Indication: Suspicion of primary liver cell carcinoma, tumor of the testes and ovaries

Material: 1 ml serum

Stability: 14 days at 2 to 8°C

TAT: same day, FML

Method: ECLIA

Units: ng/ml

Ref.- range: <10.0

Note: If the patient is taking multivitamins or dietary supplements containing high dose of Biotin (> 5 mg), the patient should stop taking it for at least 24 hours , before having the blood collection

- **Alpha-1-fetoprotein in amniotic fluid**

Indication: Suspicion of neural tube defect (NTD) with increased AFP serum levels

Material: 1 ml amniotic fluid, **Frozen**

TAT: 7-10 days\*

Method: CLIA

Units: ng/ml - µg/ml

Ref.- range: see report

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit <http://www.fml-dubai.com/parameter-listings/>