



Mr. AMATOR KANYOKE JUNIOR

PID NO: P36180012320

Age: 28 Year(s) Sex: Male

**Reference:**

Sample Collected At:  
GILEAD MEDICAL & DENTAL CENTER  
HOUSE NO BALB NO C896/3,KANDA  
HIGHWAY NORTH RIDGE,ACCRA-  
14911.  
014911

**VID: 36180112791**

Registered On:

22/08/2018 06:08 PM

Collected On:

22/08/2018

Reported On:

03/09/2018 10:43 AM

**Investigation**

**AFP-Alpha Feto Protein**  
(Serum)

**Observed Value**

0.50

**Unit**

IU/mL

**Biological Reference Interval**

0-5.8

**Interpretation:**

1. The primary malignancies associated with AFP elevations are hepatocellular carcinoma and non-seminomatous germ cell tumors. Other gastrointestinal cancers like gastric, pancreatic occasionally cause elevations of AFP. Multiple benign disorders like cirrhosis, viral hepatitis, pregnancy are associated with AFP elevations. Level above which benign disease is considered unlikely is 500 ng/ml .
2. Range for newborns is not established, however neonates have elevated AFP levels (>100,000 ng/mL)(conversion 1 IU/ml x 1.21 = 1ng/ml) that rapidly fall to below 100 ng/mL by 150 days & gradually return to normal by one year. Ref - Tsuchida Y et al: Evaluation of alpha-fetoprotein in early infancy. J Ped Surg 1978 April;13(2):155-162.

**Mr. David Adjei Adu**  
Bsc.Biomedical Scientists



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**HBV-Hepatitis B Viral load(Quantitative)**

**Test Principle** : Real Time PCR

**Target Selected** : Highly conserved pre-Core/Core region of the HBV genome across A-G genotypes is selected for amplification & detection.

**Equipment** : COBAS AmpliPrep and COBAS TaqMan

**Result :**

HBV - Hepatitis B Viral load (Quantitative)	229 IU/mL
Log Value	2.36
HBV - Hepatitis B Viral load	1333 copies/ml

**Result Interpretation:**

Result (IU/ml)	Log Value	Comments
Target Not Detected	Not Applicable	HBV DNA Not Detected
Below 20 IU/ml	Below 1.30	HBV DNA Detected, less than 20 HBV DNA IU/ml.
> 20 - 170000000	1.30 - 8.23	HBV DNA Detected within the linear range of the assay
Above 170000000	Above 8.23	HBV DNA Detected above the linear range of the assay

**Note:**

- This assay is a quantitative assay used for monitoring patients on therapy and not qualitative assay used for screening. Hence a Target Not Detected result should not be considered as HBV status Negative for the patient.
- Quantitative viral load results are best reflected when reported using log transformed units. Logarithmic expression best reflects the process of viral replication and is less subject to over interpretation of non-clinically significant (minor) changes.

**Test Details:**

**Limit of Detection:** 20 IU/ml  
**Measuring Range:** 20 - 170000000 IU/ml  
**Conversion Factor:** 1 IU/ml - 5.82 copies/ml

**Clinical utility:**

- Determine need to treat chronic HBV infection
- Indicator of chronic hepatitis
- Monitor virological response to therapy
- Demonstrate viral replication in patients with mutant HBV

*Niranjan B. Patil*



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- Predict likelihood of response to therapy
- Indicate emergence of resistant variants during antiviral therapy

**Clinical Background:**

- HBV is the most common cause of chronic liver disease worldwide. HBV is a DNA virus that is transmitted primarily through blood exposure and sexual contact, and from mothers to their children.
- The clinical manifestations range from sub clinical hepatitis to symptomatic hepatitis and, in rare instances, fulminant hepatitis. Long-term complications of hepatitis B include cirrhosis and hepatocellular carcinoma.
- Perinatal or childhood infection is associated with few or no symptoms but has a high risk of becoming chronic.
- HBV DNA detection and HBV DNA level measurement are essential for the diagnosis, decision to treat and subsequent monitoring of patients.
- Follow-up using sensitive real-time PCR quantification assays is strongly recommended because of their sensitivity, specificity, accuracy and broad dynamic range.

**Limitation of Assay:**

PCR is a highly sensitive technique; common reasons for paradoxical results are contamination during specimen collection, selection of inappropriate specimen and inherent PCR inhibitors in the sample. Confirmed HBV cases may have viral load below this detection range. Hence the results Below 20 IU/ml do not indicate that the patient is negative for HBV. It is not advisable to compare viral loads between two different techniques.

**Reference:**

- EASL Clinical practice guidelines: Management of chronic hepatitis B. J Hepatol 2012; 57:167-185.
- Lok ASF, McMahon BJ, Chronic hepatitis B: Update 2009. HEPATOLOGY 2009, 50:No.3.
- WHO Hepatitis B Fact sheet N 204 July 2012.

**-- End of Report --**