



# Labsmart Software

## Sample Letterhead

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<https://www.yourlabname.in/>**Mr. Saubhik Bhaumik**

Age / Sex : 27 YRS / M  
Referred by : Dr. Sachin Patil (MBBS)  
Reg. no. : 1058



1058

Registered on : 11/11/2024 04:40 PM  
Collected on : 11/11/2024  
Received on : 11/11/2024  
Reported on : 11/11/2024 04:40 PM

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**BIOCHEMISTRY**

TEST	VALUE	UNIT	REFERENCE
VITAMIN B12	668	pg/ml	211 - 911

**Physiologic Basis**

Vitamin B12 is a necessary cofactor for three important biochemical processes: conversion of methylmalonyl-CoA to succinyl-CoA and methylation of homocysteine to methionine and demethylation of methyltetrahydrofolate to tetra-hydrofolate (THF). All vitamin B12 comes from ingestion of foods of animal origin. Vitamin B12 in serum is protein bound, 70% to transcobalamin I (TC I) and 30% to transcobalamin II (TC II). The B12 bound to TC II is physiologically active; that bound to TC I is not.

**Interpretation**

**Increased in:** Leukemia (acute myelocytic, chronic myelocytic, chronic lymphocytic, monocytic), marked leukocytosis, polycythemia vera.

**Decreased in:** Pernicious anemia, gastrectomy, gastric carcinoma, malabsorption, pregnancy, dietary deficiency, HIV infection, chronic high-flux hemodialysis, Alzheimer disease, drugs (eg, omeprazole, metformin, carbamazepine).

**Comments**

Low serum B12 levels warrant treatment; intermediate levels should be followed by repeated serum tests or by urine methylmalonic acid tests, as well as by serum homocysteine levels. Neurologic disorders caused by low serum B12 level can occur in the absence of macrocytic anemia or pancytopenia.

~~~ End of report ~~~

Mr. Sachin Sharma  
DMLT, Lab Incharge

Dr. A. K. Asthana  
MBBS, MD Pathologist

NOT VALID FOR MEDICO LEGAL PURPOSE

Work timings: Monday to Sunday, 8 am to 8 pm

Please correlate clinically. Although the test results are checked thoroughly, in case of any unexpected test results which could be due to machine error or typing error or any other reason please contact the lab immediately for a free evaluation.