Passport No :

LABORATORY TEST REPORT

Patient Information		Sample Information		Client/Location Information	
Name	: **Lyubochka Svetka**	**Lab Id**	: **02232160XXXX**	Client Name	: Sterling Accuris Buddy
Sex/Age	: **Male / 41 Y** 01-Feb-1982	Registration on	: 20-Feb-2023 09:10	Location	:
Ref. Id	:	Collected at	: non SAWPL	Approved on	: 20-Feb-2023 12:33 Status : Final
Ref. By	:	Collected on	: 20-Feb-2023 08:53	Printed On	: 28-Feb-2023 10:26
		Sample Type	: Serum	Process At	: 1. NRL SAWPL Gujarat Ahmedabad Paldi

Immunoassay

Test	Result	Unit	Biological Ref. Interval
25(OH) Vitamin D CLIA	**8.98**	**ng/mL**	**Deficiency : <10** **Insufficiency : 10 - 30** **Sufficiency : 30 - 100** **Toxicity : >100**

Vitamin D is a fat soluble vitamin and exists in two main forms as cholecalciferol(vitamin D3) which is synthesized in skin from 7-dehydrocholesterol in response to sunlight exposure & Ergocalciferol(vitamin D2) present mainly in dietary sources.Both cholecalciferol & Ergocalciferol are converted to 25(OH)vitamin D in liver.

Interpretation:

Increased In

- Vitamin D intoxication
- Excessive exposure to sunlight

Decreased In

- Malabsorption
- Steatorrhea
- Dietary osteomalacia, anticonvulsant osteomalacia
- Biliary and portal cirrhosis
- Thyrotoxicosis
- Pancreatic insufficiency
- Celiac disease
- Rickets
- Alzheimer disease

Limitations:

More recently, it has become clear that receptors for vitamin D are present in a wide variety of cells and that this hormone has biologic effects extending beyond the control of mineral metabolism. Vitamin D deficiency is not clear. Levels needed to prevent rickets and osteomalacia (15 ng/mL) are lower than those that dramatically suppress parathyroid hormone levels (20–30 ng/mL). In turn, those levels are lower than levels needed to optimize intestinal calcium absorption (34 ng/mL). Neuromuscular peak performance is associated with levels approximately 38 ng/mL. A recent study states that increasing mean baseline levels from 29 to 38 ng/mL was associated with a 50% lower risk for colon cancer and levels of 52 ng/mL with a 50% reduction in the incidence of breast cancer. It is recommended to have clinical correlation with serum 25(OH)vitamin D, serum calcium, serum PTH & serum alkaline phosphatase.

DR.TEJASWINI DHOTE
M.D. Pathology

Dr. Sanjeev Shah
MD Path

Dr.Yash Shah
MD Path

This is an Electronically Authenticated Report.

Referred Test

Sterling Accuris Pathology Laboratory
National Reference Laboratory: 101 to 109, First Floor, Sankalp Square II, Nr. Old Sharda Mandir Cross Road, B/s. Jalaram Mandir Railway Crossing, Ellisbridge, Ahmedabad, Gujarat- 380006, **Ph.: 812 813 0000**
Email: customer.care@sterlingaccuris.com | **Website:** www.sterlingaccuris.com

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		Sample Type	: Serum	Process At	: 1. NRL SAWPL Gujarat Ahmedabad Paldi

Immunoassay

Test	Result	Unit	Biological Ref. Interval
Vitamin B12 *CLIA*	L **< 148**	**pg/mL**	**187 - 833**

Vitamin B12 is essential in DNA synthesis, hematopoiesis, and CNS integrity.

Interpretation:

- **Increased In :** Chronic granulocytic leukemia , COPD and Chronic renal failure , Leukocytosis , Liver cell damage (hepatitis, cirrhosis) , Obesity and Severe CHF , Polycythemia vera , Protein malnutrition.
- **Decreased In :** Abnormalities of cobalamin transport or metabolism , Bacterial overgrowth , Crohn disease , Dietary deficiency (e.g. in vegetarians) , Diphyllobothrium (fish tapeworm) infestation , Gastric or small intestine surgery , Hypochlorhydria , Inflammatory bowel diseas , Intestinal malabsorption and Intrinsic factor deficiency

Limitations:

- Drugs such as chloral hydrate increase vitamin B12 levels. On the other hand , alcohol, aminosalicylic acid, anticonvulsants, ascorbic acid, cholestyramine, cimetidine, colchicines, metformin, neomycin, oral contraceptives, ranitidine, and triamterene decrease vitamin B12 levels.
- The evaluation of macrocytic anemia requires measurements of both vitamin B12 and folate levels; ideally they should be measured simultaneously.
- Specimen collection soon after blood transfusion can falsely increase vitamin B12 levels.
- Patients taking vitamin B12 supplementation may have misleading results.
- A normal serum concentration of B12 does not rule out tissue deficiency of vitamin B12. The most sensitive test for B12 deficiency at the cellular level is the assay for MMA. If clinical symptoms suggest deficiency, measurement of MMA and homocysteine should be considered, even if serum B12 concentrations are normal.

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