

# Patient Report

Account Number: 34511485

Ordering Physician: R KOMINIARE



Ordered Items: **CMP13+6AC+CBC/D/Plt+Mg+Fer+...; NMR LipoProfile+Lipids+IR; PSA+TestT+LH+DHEA S+Cort+E2...; CRP C+Homocyst+V D25; TSH+T4F+T3Free; N-Telopeptide, Urine (Serial); Testosterone, Free/Tot Equilib; Apo A1 + B + Ratio; Vitamin B12 and Folate; Pregnenolone, MS; Dihydrotestosterone; FSH; Prolactin; IGF-1; Reverse T3, Serum; Fibrinogen Antigen; Lipoprotein (a); Myeloperoxidase (MPO); Lp-PLA2 Activity; IGF-BP3; Copper, Serum or Plasma; Zinc, Plasma or Serum; Growth Hormone, Serum; Progesterone; Estrone, Serum; Thyroid Peroxidase (TPO) Ab; Sex Horm Binding Glob, Serum; Venipuncture**

Date Collected: 11/24/2021

Date Received: 11/24/2021

Date Reported: 12/03/2021

Fasting: Yes

## CMP13+6AC+CBC/D/Plt+Mg+Fer+...

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Glucose <sup>01</sup>	87		mg/dL	65-99
Hemoglobin A1c <sup>01</sup>	5.5		%	4.8-5.6
Please Note: <sup>01</sup>	Prediabetes: 5.7 - 6.4 Diabetes: >6.4 Glycemic control for adults with diabetes: <7.0			
Uric Acid <sup>01</sup>	5.5		mg/dL	3.8-8.4
	Therapeutic target for gout patients: <6.0			
BUN <sup>01</sup>	23		mg/dL	6-24
Creatinine <sup>01</sup>	1.24		mg/dL	0.76-1.27
eGFR If NonAfricn Am	65		mL/min/1.73	>59
eGFR If Africn Am	75		mL/min/1.73	>59
	**In accordance with recommendations from the NKF-ASN Task force,** Labcorp is in the process of updating its eGFR calculation to the 2021 CKD-EPI creatinine equation that estimates kidney function without a race variable.			
Sodium <sup>01</sup>	139		mmol/L	134-144
Potassium <sup>01</sup>	4.5		mmol/L	3.5-5.2
Chloride <sup>01</sup>	100		mmol/L	96-106
Calcium <sup>01</sup>	9.5		mg/dL	8.7-10.2
Phosphorus <sup>01</sup>	2.8		mg/dL	2.8-4.1
Magnesium <sup>01</sup>	2.1		mg/dL	1.6-2.3
Protein, Total <sup>01</sup>	6.9		g/dL	6.0-8.5
Albumin <sup>01</sup>	4.7		g/dL	3.8-4.9
Bilirubin, Total <sup>01</sup>	0.7		mg/dL	0.0-1.2
Bilirubin, Direct <sup>01</sup>	0.16		mg/dL	0.00-0.40
Bilirubin, Indirect	0.54		mg/dL	0.10-0.80
Alkaline Phosphatase <sup>01</sup>	82		IU/L	44-121
	**Please note reference interval change**			
LDH <sup>01</sup>	174		IU/L	121-224
AST (SGOT) <sup>01</sup>	28		IU/L	0-40
ALT (SGPT) <sup>01</sup>	20		IU/L	0-44
GGT <sup>01</sup>	11		IU/L	0-65
Iron <sup>01</sup>	108		ug/dL	38-169
Ferritin <sup>01</sup>	46		ng/mL	30-400
Insulin <sup>01</sup>	2.8		uIU/mL	2.6-24.9



Date Created and Stored 12/03/21 0613 ET **Final Report** Page 1 of 9

## Patient Report

Account Number: 34511485

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## CMP13+6AC+CBC/D/Plt+Mg+Fer+... (Cont.)

CBC, Platelet Ct, and Diff <sup>01</sup>				
▼ <b>WBC</b> <sup>01</sup>	3.2	Low	x10E3/uL	3.4-10.8
RBC <sup>01</sup>	5.44		x10E6/uL	4.14-5.80
Hemoglobin <sup>01</sup>	16.9		g/dL	13.0-17.7
Hematocrit <sup>01</sup>	50.8		%	37.5-51.0
MCV <sup>01</sup>	93		fL	79-97
MCH <sup>01</sup>	31.1		pg	26.6-33.0
MCHC <sup>01</sup>	33.3		g/dL	31.5-35.7
RDW <sup>01</sup>	13.4		%	11.6-15.4
▼ <b>Platelets</b> <sup>01</sup>	139	Low	x10E3/uL	150-450
Neutrophils <sup>01</sup>	64		%	Not Estab.
Lymphs <sup>01</sup>	26		%	Not Estab.
Monocytes <sup>01</sup>	10		%	Not Estab.
Eos <sup>01</sup>	0		%	Not Estab.
Basos <sup>01</sup>	0		%	Not Estab.
Neutrophils (Absolute) <sup>01</sup>	2.0		x10E3/uL	1.4-7.0
Lymphs (Absolute) <sup>01</sup>	0.8		x10E3/uL	0.7-3.1
Monocytes(Absolute) <sup>01</sup>	0.3		x10E3/uL	0.1-0.9
Eos (Absolute) <sup>01</sup>	0.0		x10E3/uL	0.0-0.4
Baso (Absolute) <sup>01</sup>	0.0		x10E3/uL	0.0-0.2
Immature Granulocytes <sup>01</sup>	0		%	Not Estab.
Immature Grans (Abs) <sup>01</sup>	0.0		x10E3/uL	0.0-0.1

## NMR LipoProfile+Lipids+IR

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
LDL Particle Number <sup>02</sup>					
▲ LDL-P <sup>A, 02</sup>	1495	High		nmol/L	<1000
			Low	< 1000	
			Moderate	1000 - 1299	
			Borderline-High	1300 - 1599	
			High	1600 - 2000	
			Very High	> 2000	
Lipids <sup>02</sup>					
▲ LDL-C (NIH Calc) <sup>02</sup>	141	High		mg/dL	0-99
			Optimal	< 100	
			Above optimal	100 - 129	
			Borderline	130 - 159	
			High	160 - 189	
			Very high	> 189	
HDL-C <sup>A, 02</sup>	48			mg/dL	>39
Triglycerides <sup>A, 02</sup>	67			mg/dL	0-149
▲ Cholesterol, Total <sup>A, 02</sup>	201	High		mg/dL	100-199
LDL and HDL Particles <sup>02</sup>					
HDL-P (Total) <sup>A, 02</sup>	31.2			umol/L	>=30.5

## Patient Report

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## NMR LipoProfile+Lipids+IR (Cont.)

▲ Small LDL-P <sup>A, 02</sup>	710	High	nmol/L	<=527
LDL Size <sup>A, 02</sup>	20.9		nm	>20.5

## \*\* INTERPRETATIVE INFORMATION\*\*

## PARTICLE CONCENTRATION AND SIZE

&lt;--Lower CVD Risk Higher CVD Risk--&gt;

LDL AND HDL PARTICLES Percentile in Reference Population

HDL-P (total)	High	75th	50th	25th	Low
	>34.9	34.9	30.5	26.7	<26.7

Small LDL-P	Low	25th	50th	75th	High
	<117	117	527	839	>839

LDL Size	<-Large (Pattern A)->	<-Small (Pattern B)->
	23.0 20.6	20.5 19.0

Comment:<sup>02</sup>

Small LDL-P and LDL Size are associated with CVD risk, but not after LDL-P is taken into account.

Insulin Resistance/Diab. Risk <sup>02</sup>				
Large VLDL-P <sup>A, 02</sup>	0.9		nmol/L	<=2.7
▲ Small LDL-P <sup>A, 02</sup>	710	High	nmol/L	<=527
Large HDL-P <sup>A, 02</sup>	5.1		umol/L	>=4.8
VLDL Size <sup>A, 02</sup>	35.6		nm	<=46.6
LDL Size <sup>A, 02</sup>	20.9		nm	>=20.8
▼ HDL Size <sup>A, 02</sup>	8.8	Low	nm	>=9.2
Insulin Resistance Score <sup>02</sup>				
LP-IR Score <sup>A, 02</sup>	34			<=45

## INSULIN RESISTANCE / DIABETES RISK MARKERS

&lt;--Insulin Sensitive Insulin Resistant--&gt;

Percentile in Reference Population

Large VLDL-P	Low	25th	50th	75th	High
	<0.9	0.9	2.7	6.9	>6.9

Small LDL-P	Low	25th	50th	75th	High
	<117	117	527	839	>839

Large HDL-P	High	75th	50th	25th	Low
	>7.3	7.3	4.8	3.1	<3.1

VLDL Size	Small	25th	50th	75th	Large
	<42.4	42.4	46.6	52.5	>52.5

LDL Size	Large	75th	50th	25th	Small
	>21.2	21.2	20.8	20.4	<20.4

HDL Size	Large	75th	50th	25th	Small
	>9.6	9.6	9.2	8.9	<8.9

Insulin Resistance Score

LP-IR SCORE	Low	25th	50th	75th	High
	<27	27	45	63	>63

Comment:<sup>02</sup>

## NMR LipoProfile+Lipids+IR (Cont.)

LP-IR Score is inaccurate if patient is non-fasting.  
The LP-IR score is a laboratory developed index that has been associated with insulin resistance and diabetes risk and should be used as one component of a physician's clinical assessment.

## PSA+TestT+LH+DHEA S+Cort+E2...

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Prostate Specific Ag <sup>01</sup>	0.5		ng/mL	0.0-4.0
Roche ECLIA methodology. According to the American Urological Association, Serum PSA should decrease and remain at undetectable levels after radical prostatectomy. The AUA defines biochemical recurrence as an initial PSA value 0.2 ng/mL or greater followed by a subsequent confirmatory PSA value 0.2 ng/mL or greater. Values obtained with different assay methods or kits cannot be used interchangeably. Results cannot be interpreted as absolute evidence of the presence or absence of malignant disease.				
Cortisol <sup>01</sup>	13.4		ug/dL	
		Cortisol AM	6.2 - 19.4	
		Cortisol PM	2.3 - 11.9	
Testosterone <sup>01</sup>	759		ng/dL	264-916
Adult male reference interval is based on a population of healthy nonobese males (BMI <30) between 19 and 39 years old. Travison, et.al. JCEM 2017,102;1161-1173. PMID: 28324103.				
Free Testosterone(Direct) <sup>02</sup>	12.2		pg/mL	7.2-24.0
▼ LH <sup>01</sup>	<0.3	Low	mIU/mL	1.7-8.6
DHEA-Sulfate <sup>01</sup>	91.2		ug/dL	48.9-344.2
▼ Estradiol <sup>01</sup>	5.4	Low	pg/mL	7.6-42.6
Roche ECLIA methodology				

## CRP C+Homocy+V D25

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
C-Reactive Protein, Cardiac <sup>01</sup>	0.42		mg/L	0.00-3.00
Relative Risk for Future Cardiovascular Event Low <1.00 Average 1.00 - 3.00 High >3.00				
Homocyst(e)ine <sup>01</sup>	10.8		umol/L	0.0-14.5
Vitamin D, 25-Hydroxy <sup>01</sup>	46.9		ng/mL	30.0-100.0
Vitamin D deficiency has been defined by the Institute of Medicine and an Endocrine Society practice guideline as a level of serum 25-OH vitamin D less than 20 ng/mL (1,2). The Endocrine Society went on to further define vitamin D insufficiency as a level between 21 and 29 ng/mL (2). 1. IOM (Institute of Medicine). 2010. Dietary reference intakes for calcium and D. Washington DC: The				

## CRP C+Homocy+V D25 (Cont.)

National Academies Press.

2. Holick MF, Binkley NC, Bischoff-Ferrari HA, et al. Evaluation, treatment, and prevention of vitamin D deficiency: an Endocrine Society clinical practice guideline. JCEM. 2011 Jul; 96(7):1911-30.

## TSH+T4F+T3Free

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
TSH <sup>01</sup>	3.160		uIU/mL	0.450-4.500
Triiodothyronine (T3), Free <sup>01</sup>	2.6		pg/mL	2.0-4.4
T4,Free(Direct) <sup>01</sup>	0.88		ng/dL	0.82-1.77

## N-Telopeptide, Urine (Serial)

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
N-Telopeptide <sup>02</sup>	<15		nmol BCE	Not Estab.
Creatinine, Urine <sup>01</sup>	12.6		mg/dL	Not Estab.
N-Telo/Creat. Ratio	<13		nM BCE/mM Cr	0-62

Interpretive Guide:<sup>02</sup>

The N-telopeptide and Creatinine are used to calculate the N-telo/Creat. Ratio which is referred to as "NTx". Suggested guidelines for the clinical use of NTx are as follows:

1. Menopausal Women not on Hormone Replacement Therapy (HRT): Women with a baseline NTx value >38 are at significant risk for a decrease in bone mineral density (BMD) after 1 year compared to women on HRT. The probability of a decline in BMD increases with NTx value as follows: (1):
 

Baseline NTx	Probability of Decrease in BMD
18- 38	1.4 p=0.28
38- 51	2.5 p=0.03
51- 67	3.8 p=0.0006
67-188	17.3 p=0.0001
2. Menopausal Women Receiving Antiresorptive Therapy: The probability that treatment is effective after three months is increased when the measured NTx value is <or=38 nM BCE/mM CRT, or NTx has decreased >or=30% from baseline.[1]
3. Patients with Paget's Disease of Bone:
 

The probability that treatment is effective after one month is increased when the measured NTx value is within the reference range, or NTx has decreased >or=30% from baseline.[2]

  1. Chesnut CH, Bell NH, Clark GS, et al. Am J Med, 102:29-37,1997. (1):M757, 1996.
  2. Bone H, Tucci J, et al. J Bone Min Res.11(1):M757,1996

PDF<sup>03</sup>

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## Patient Report

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## Testosterone, Free/Tot Equilib

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
▲ Testosterone,Free	29.45 High		ng/dL	5.00-21.00
% Free Testosterone <sup>02</sup>	3.88		%	1.50-4.20

## Apo A1 + B + Ratio

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Apolipoprotein A-1 <sup>02</sup>	122		mg/dL	101-178
▲ Apolipoprotein B <sup>02</sup>	98 High		mg/dL	<90
<div>Desirable &lt; 90 Borderline High 90 - 99 High 100 - 130 Very High &gt;130</div>				
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ASCVD RISK CATEGORY		THERAPEUTIC TARGET APO B (mg/dL)		
Very High Risk		<80 (if extreme risk <70)		
High Risk		<90		
Moderate Risk		<90		
▲ Apolipo. B/A-1 Ratio	0.8 High		ratio	0.0-0.7
Apolipoprotein B/A-1 Ratio				
Male Female				
Avg.Risk 0.7 0.6				
2X Avg.Risk 0.9 0.9				
3X Avg.Risk 1.0 1.0				

## Vitamin B12 and Folate

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Vitamin B12 <sup>01</sup>	828		pg/mL	232-1245
Folate (Folic Acid), Serum <sup>01</sup>	15.1		ng/mL	>3.0
Note: <sup>01</sup>	A serum folate concentration of less than 3.1 ng/mL is considered to represent clinical deficiency.			

## Pregnenolone, MS

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Pregnenolone, MS <sup>04</sup>	22		ng/dL	
This test was developed and its performance characteristics determined by LabCorp. It has not been cleared or approved by the Food and Drug Administration. Reference Range: Adults: <151				

## Dihydrotestosterone

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
▲ Dihydrotestosterone <sup>04</sup>	131 High		ng/dL	
This test was developed and its performance characteristics				

## Patient Report

Account Number: 34511485

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## Dihydrotestosterone (Cont.)

determined by LabCorp. It has not been cleared or approved  
by the Food and Drug Administration.

Reference Range:

Adult Male: 30 - 85

## FSH

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
▼ FSH <sup>01</sup>	<0.3 Low		mIU/mL	1.5-12.4

## Prolactin

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Prolactin <sup>01</sup>	8.0		ng/mL	4.0-15.2

## IGF-1

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Insulin-Like Growth Factor I <sup>02</sup>	144		ng/mL	68-247

## Reverse T3, Serum

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Reverse T3, Serum <sup>B,02</sup>	12.8		ng/dL	9.2-24.1

## Fibrinogen Antigen

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
▲ Fibrinogen Antigen <sup>02</sup>	371 High		mg/dL	180-350

## Lipoprotein (a)

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Lipoprotein (a) <sup>01</sup>	40.9		nmol/L	<75.0

Note: Values greater than or equal to 75.0 nmol/L may indicate an independent risk factor for CHD, but must be evaluated with caution when applied to non-Caucasian populations due to the influence of genetic factors on Lp(a) across ethnicities.

## Myeloperoxidase (MPO)

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Myeloperoxidase (MPO) <sup>C,02</sup>	306		pmol/L	0-469
		Low CVD Risk	<470	
		Moderate Risk	470 - 539	
		High Risk	>539	

## Lp-PLA2 Activity

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
▲ Lp-PLA2 Activity <sup>02</sup>	237 High		nmol/min/mL	0-224



Date Created and Stored 12/03/21 0613 ET Final Report Page 7 of 9

## Patient Report

Account Number: 34511485

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### Lp-PLA2 Activity (Cont.)

Reduced Risk <225  
Increased Risk >224

### IGF-BP3

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
IGF-BP3 <sup>02</sup>	3641		ug/L	2133-5711

### Copper, Serum or Plasma

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Copper, Serum or Plasma <sup>A, 02</sup>	83		ug/dL	69-132
Detection Limit = 5				

### Zinc, Plasma or Serum

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Zinc, Plasma or Serum <sup>A, 02</sup>	87		ug/dL	44-115
Detection Limit = 5				

### Growth Hormone, Serum

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Growth Hormone, Serum <sup>02</sup>	1.1		ng/mL	0.0-10.0

### Progesterone

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Progesterone <sup>01</sup>	0.1		ng/mL	0.0-0.5

### Estrone, Serum

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
▲ Estrone, Serum <sup>02</sup>	107 High		pg/mL	15-65

### Thyroid Peroxidase (TPO) Ab

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Thyroid Peroxidase (TPO) Ab <sup>01</sup>	<8		IU/mL	0-34

### Sex Horm Binding Glob, Serum

Test	Current Result and Flag	Previous Result and Date	Units	Reference Interval
Sex Horm Binding Glob, Serum <sup>01</sup>	44.6		nmol/L	19.3-76.4

#### Disclaimer

The Previous Result is listed for the most recent test performed by Labcorp in the past 3 years where there is sufficient patient demographic data to match the result to the patient

#### Icon Legend

▲ Out of reference range ■ Critical or Alert



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### Comments

A: This test was developed and its performance characteristics determined by Labcorp. It has not been cleared or approved by the Food and Drug Administration.

B: This test was developed and its performance characteristics determined by Labcorp. It has not been cleared or approved by the Food and Drug Administration.

C: Results of this test are labeled for research purposes only by the assay's manufacturer. The performance characteristics of this assay have not been established by the manufacturer. The result should not be used for treatment or for diagnostic purposes without confirmation of the diagnosis by another medically established diagnostic product or procedure. The performance characteristics were determined by Labcorp.

### Performing Labs

01: CB - Labcorp Dublin 6370 Wilcox Road, Dublin, OH, 43016-1269 Dir: Vincent Ricchiuti, PhD

02: BN - Labcorp Burlington 1447 York Court, Burlington, NC, 27215-3361 Dir: Sanjai Nagendra, MD

03: TG - Labcorp RTP 1912 TW Alexander Drive, RTP, NC, 27709-0150 Dir: Anjen Chenn, MDPhD

04: ES - Esoterix Inc 4301 Lost Hills Road, Calabasas Hills, CA, 91301-5358 Dir: Brian Poirier, MD

For Inquiries, the physician can contact Branch: 800-852-4670 Lab: 800-282-7300

#### Physician Details

**R KOMINIARE**

**Dr Robert A Kominiarek D O**

**9240 Marketplace Dr, Miamisburg, OH,  
45342**

Phone: **937-350-5527**

Account Number: **34511485**

Physician ID:

NPI: **1841389913**

#### Specimen Details

Specimen ID: **328-305-5728-0**

Control ID: **42289017290**

Alternate Control Number:

Date Collected: **11/24/2021 0913 Local**

Date Received: **11/24/2021 0000 ET**

Date Entered: **11/24/2021 1821 ET**

Date Reported: **12/03/2021 0607 ET**

Rte: **00**