

SIMA,BEN

DOB: 07/21/1992	Age: 33	Specimen: PZ486618N	Collected: 04/06/2026 08:06	Client #: 73930247
Sex: M	Fasting: Y	Requisition: 0003117	Received: 04/06/2026 08:06	ROBERTS,KIRK
Phone: (330) 316-2173		Lab Reference ID: RPH394Y99C	Reported: 04/09/2026 09:39	FULLSCRIPT-DR
Patient ID: RP1336563		Report Status: FINAL / SEE REPORT		1750 ELM ST FL 12
				MANCHESTER, NH 03104-2907
				Phone: (888) 894-4014

FASTING: YES

▲ IRON, TIBC AND FERRITIN PANEL

Analyte	Value
FERRITIN	87 Reference Range: 38-380 ng/mL

▲ IRON AND TOTAL IRON BINDING CAPACITY

Analyte	Value
IRON, TOTAL	72 Reference Range: 50-180 mcg/dL
IRON BINDING CAPACITY	376 Reference Range: 250-425 mcg/dL (calc)
▲ % SATURATION	19 L Reference Range: 20-48 % (calc)

▲ LIPID PANEL, STANDARD

Analyte	Value
▲ CHOLESTEROL, TOTAL	244 H Reference Range: <200 mg/dL
HDL CHOLESTEROL	43 Reference Range: > OR = 40 mg/dL
▲ TRIGLYCERIDES	215 H Reference Range: <150 mg/dL

If a non-fasting specimen was collected, consider repeat triglyceride testing on a fasting specimen if clinically indicated.
Jacobson et al. J. of Clin. Lipidol. 2015;9:129-169.

▲ LDL-CHOLESTEROL	163 H mg/dL (calc)
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Reference range: <100

Desirable range <100 mg/dL for primary prevention;
<70 mg/dL for patients with CHD or diabetic patients
with > or = 2 CHD risk factors.

LDL-C is now calculated using the Martin-Hopkins calculation, which is a validated novel method providing better accuracy than the Friedewald equation in the estimation of LDL-C.

Martin SS et al. JAMA. 2013;310(19): 2061-2068
(<http://education.QuestDiagnostics.com/faq/FAQ164>)

▲ CHOL/HDL-C RATIO	5.7 H Reference Range: <5.0 (calc)
▲ NON HDL CHOLESTEROL	201 H Reference Range: <130 mg/dL (calc)

For patients with diabetes plus 1 major ASCVD risk factor, treating to a non-HDL-C goal of <100 mg/dL (LDL-C of <70 mg/dL) is considered a therapeutic option.

▲ INSULIN

Analyte	Value
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▲ INSULIN**29.7 H** uIU/mL

Reference Range < or = 18.4

Risk:

Optimal	< or = 18.4
Moderate	NA
High	>18.4

Adult cardiovascular event risk category cut points (optimal, moderate, high) are based on Insulin Reference Interval studies performed at Quest Diagnostics in 2022.

▲ HEMOGLOBIN A1c WITH eAG**Analyte****Value****▲ HEMOGLOBIN A1c****5.7 H** Reference Range: <5.7 %

For someone without known diabetes, a hemoglobin A1c value between 5.7% and 6.4% is consistent with prediabetes and should be confirmed with a follow-up test.

For someone with known diabetes, a value <7% indicates that their diabetes is well controlled. A1c targets should be individualized based on duration of diabetes, age, comorbid conditions, and other considerations.

This assay result is consistent with an increased risk of diabetes.

Currently, no consensus exists regarding use of hemoglobin A1c for diagnosis of diabetes for children.

eAG (mg/dL)	117	mg/dL
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eAG (mmol/L)	6.5	mmol/L
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COMP METABOLIC PANEL W/ADJ CALCIUM, PLASMA**Analyte****Value****GLUCOSE****95** Reference Range: 65-99 mg/dL

Fasting reference interval

UREA NITROGEN (BUN)**15** Reference Range: 7-25 mg/dL**CREATININE****1.13** Reference Range: 0.60-1.26 mg/dL**EGFR****88** Reference Range: > OR = 60 mL/min/1.73m²**BUN/CREATININE RATIO****SEE NOTE:** Reference Range: 6-22 (calc)

Not Reported: BUN and Creatinine are within reference range.

SODIUM**138** Reference Range: 135-146 mmol/L**POTASSIUM****4.4** Reference Range: 3.4-4.8 mmol/L**CHLORIDE****104** Reference Range: 98-110 mmol/L**CARBON DIOXIDE****26** Reference Range: 20-32 mmol/L**CALCIUM****9.5** Reference Range: 8.6-10.3 mg/dL**CALCIUM (ADJUSTED FOR ALBUMIN)****9.3** Reference Range: 8.6-10.2 mg/dL (calc)**PROTEIN, TOTAL****7.4** Reference Range: 6.4-8.4 g/dL**ALBUMIN****4.7** Reference Range: 3.6-5.1 g/dL**GLOBULIN****2.7** Reference Range: 2.2-4.0 g/dL (calc)**ALBUMIN/GLOBULIN RATIO****1.7** Reference Range: 0.9-2.3 (calc)

BILIRUBIN, TOTAL	0.4	Reference Range: 0.2-1.2 mg/dL
ALKALINE PHOSPHATASE	47	Reference Range: 36-130 U/L
AST	25	Reference Range: 10-40 U/L
ALT	32	Reference Range: 9-46 U/L

VITAMIN D,25-OH,TOTAL,IA

Analyte	Value	
VITAMIN D,25-OH,TOTAL,IA	33	Reference Range: 30-100 ng/mL
Vitamin D Status	25-OH Vitamin D:	
Deficiency:	<20 ng/mL	
Insufficiency:	20 - 29 ng/mL	
Optimal:	> or = 30 ng/mL	
For 25-OH Vitamin D testing on patients on D2-supplementation and patients for whom quantitation of D2 and D3 fractions is required, the QuestAssured(TM) 25-OH VIT D, (D2,D3), LC/MS/MS is recommended: order code 92888 (patients >2yrs).		

COMMENT

See Note 1

METHYLMALONIC ACID

Analyte	Value	
METHYLMALONIC ACID	65	Reference Range: 55-335 nmol/L
See Note 2		

COMMENT

Serum methylmalonic acid (MMA) levels are used to diagnose and monitor several rare inborn errors of metabolism, including methylmalonic aciduria. The enzymatic conversion of MMA to succinic acid requires vitamin B12 (adenosyl-cobalamin) as a cofactor. Serum MMA levels are also used for assessing functional vitamin B12 deficiency. Vitamin B12 is essential for fetal neurodevelopment, particularly early in pregnancy. Undiagnosed maternal vitamin B12 deficiency may be associated with adverse fetal/neonatal outcomes, such as neural tube defects and intrauterine growth restriction.

Quest Diagnostics utilized Multi-Modal Decomposition (MMD) analysis to establish first and second trimester-specific MMA reference intervals in pregnancy, as given below:

MMA, First trimester (<13 wks gestation): 58-167 nmol/L
MMA, Second trimester (13-23 wks gestation): 63-241 nmol/L

Note 1

For additional information, please refer to <http://education.QuestDiagnostics.com/faq/FAQ199> (This link is being provided for informational/educational purposes only.)

Note 2

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics. It has not been cleared or approved by the FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

GGT

Analyte	Value	
GGT	30	Reference Range: 3-90 U/L

MAGNESIUM

Analyte	Value
MAGNESIUM	2.2 Reference Range: 1.5-2.5 mg/dL

URIC ACID

Analyte	Value
URIC ACID	6.3 Reference Range: 4.0-8.0 mg/dL

Therapeutic target for gout patients: <6.0 mg/dL

Micronutrients

B-VITAMINS

Analyte	Value
FOLATE	10.6 Reference Range: >5.4 ng/mL See Comment A

HOMOCYSTEINE

Analyte	Value
HOMOCYSTEINE	9.7 Reference Range: < or = 13.5 umol/L

Homocysteine is increased by functional deficiency of folate or vitamin B12. Testing for methylmalonic acid differentiates between these deficiencies. Other causes of increased homocysteine include renal failure, folate antagonists such as methotrexate and phenytoin, and exposure to nitrous oxide.
Selhub J, et al., Ann Intern Med. 1999;131(5):331-9.

CYSTATIN C WITH eGFR

Analyte	Value
CYSTATIN C	0.90 Reference Range: 0.52-1.31 mg/L
eGFR	100 Reference Range: > OR = 60 mL/min/1.73m2

C-PEPTIDE

Analyte	Value
C-PEPTIDE	2.83 Reference Range: 0.80-3.85 ng/mL

TSH

Analyte	Value
TSH	1.05 Reference Range: 0.40-4.50 mIU/L

VITAMIN B12



Analyte	Value
VITAMIN B12	442 Reference Range: 200-1100 pg/mL

Comment A Folate from food and its synthesized form of folic acid are both considered forms of vitamin B9. Vitamin B9 is a vitamin coenzyme for nucleic acid synthesis, red blood cell production, and methionine regulation. Clinical deficiency is common in pregnant women, alcoholics, in patients who do not consume raw fruits and vegetables, and in people with damage to the small intestine. Low folic acid levels can be a result of vitamin B12 deficiency, which decreases the ability of cells to take up folic acid. For more information, visit <https://ods.od.nih.gov/factsheets/Folate-HealthProfessional/>

Performing Sites

AMD Quest Diagnostics/Nichols Chantilly-Chantilly VA, 14225 Newbrook Dr, Chantilly, VA 20151-2228 Laboratory Director: Patrick W Mason M.D.,PhD
QPT Quest Diagnostics of Pennsylvania-Pittsburgh, 875 Greentree Rd, 4 Parkway Center, Pittsburgh, PA 15220-3508 Laboratory Director: Kambiz Merati MD

Key

 Priority Out of Range  Out of Range

These results have been sent to the person who ordered the tests. Your receipt of these results should not be viewed as medical advice and is not meant to replace discussion with your doctor or other healthcare professional.

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