Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

Update Summary		
New Test Activation	4/29/2025	HHAPS - "Hereditary Hemolytic Anemia Panel Sequencing"
New Test Activation	4/29/2025	UCRRA - "Chromium, Urine"
New Test Activation	4/29/2025	UPORR - "Porphyrins, Fractionated, Quant, Random Urine"
New Test Activation	4/29/2025	UZNRA - "Zinc, Random Urine"
Update Existing Test	4/1/2025	CALPT - "Calprotectin"
Update Existing Test	4/1/2025	FCAPE - "Fecal Calprotectin and Pancreatic Elastase Panel"
Update Existing Test	4/21/2025	HDCAG - "Huntington Disease (HD) CAG Repeat Expansion"
Update Existing Test	4/14/2025	HGBAQ - "Hemoglobin A1c"
Update Existing Test	4/1/2025	PEL1 - "Pancreatic Elastase 1"
Update Existing Test	4/8/2025	RABAR - "Rabies Antibody Screen (RFFIT)"
Update Existing Test	4/29/2025	TESM - "Testosterone, Total, LC/MS/MS"
Update Existing Test	4/28/2025	TICKI - "Tick ID with Reflex to Borrelia species DNA, RT-PCR, Tick"
Update Existing Test	4/21/2025	UHVA - "Homovanillic Acid (HVA), Urine"
Update Existing Test	4/21/2025	UVMHA - "VMA and HVA, Urine"
Inactivate Test With Replacement	4/29/2025	AFBAS - "AFB Antimicrob Suscep (MYCOB)" replaced by ASAFB - "Antimicrobial Susceptibility, AFB/Mycobacteria"
Inactivate Test With Replacement	4/14/2025	CMVQR - "Cytomegalovirus DNA, Quantitative, Real-Time PCR" replaced by CMVRT - "Cytomegalovirus DNA, Quantitative, Real-Time PCR, MISC"
Inactivate Test With Replacement	4/29/2025	EBVQL - "Epstein Barr Virus DNA PCR, Qual." replaced by EBCQL - "Epstein-Barr Virus DNA PCR, Qualitative, CSF"
Inactivate Test With Replacement	4/29/2025	EPBAV - "Epstein-Barr Virus DNA, Quant Real-Time PCR, CSF" replaced by EBCQN - "Epstein-Barr Virus DNA PCR, Quantitative, CSF"
Inactivate Test With Replacement	5/5/2025	INPBL - "Comprehensive Volatiles Panel, Blood" replaced by CVLPB - "Comprehensive Volatiles Panel, Blood"
Inactivate Test With Replacement	4/29/2025	LPROA - "Lipoprotein LP(a)" replaced by LPA - "Lipoprotein LP(a)"
Inactivate Test With Replacement	4/29/2025	TESBQ - "Testosterone, Free, Bioavailable and Total, MS" replaced by TESB - "Testosterone, Free, Bioavailable and Total, MS"
Inactivate Test With Replacement	4/29/2025	UCHR - "Chromium, Urine" replaced by UCR24 - "Chromium, 24-Hour Urine"
Inactivate Test With Replacement	4/29/2025	UPORA - "Porphyrins Fraction and Quant Ur" replaced by UPO24 - "Porphyrins, Fractionated, Quant, 24-Hour Urine"
Inactivate Test With Replacement	4/29/2025	UZINC - "Zinc - Urine" replaced by UZN24 - "Zinc, 24-Hour Urine"
Inactivate Test Without Replacement	4/1/2025	ADVAB - "Adenovirus Antibody, Serum"
Inactivate Test Without Replacement	4/21/2025	AVAH - "Arginine Vasopressin Hormone"
Inactivate Test Without Replacement	4/1/2025	INABS - "Influenza Type A and B Antibodies, Serum"
Inactivate Test Without Replacement	4/1/2025	MCPPC - "Meningoencephalitis Comprehensive Panel, CSF"

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

New Test Activation

Effective Date	4/29/2025
Name	Hereditary Hemolytic Anemia Panel Sequencing
Code	HHAPS
CPT Code(s)	81249; 81404; 81405; 81479
Notes	New York DOH Approval Status: No

Specimen Requirements

Specimen Required	*Collect:* Lavender EDTA *Specimen Preparation:* Send 3.0 mL whole blood. *Minimum Volume:* 1.0 mL *Transport Temperature:* Refrigerated
Alternate Specimen	Whole blood: ACD solution A or B (yellow-top)
Rejection Criteria	Serum, Plasma
Stability	Room temperature: 72 hours Refrigerated: 14 days Frozen: Unacceptable

Performing Information

Methodology	Massively Parallel Sequencing
Reference Range	See report
Performed Days	Varies
Turnaround Time	16 - 23 days
Performing Laboratory	ARUP Reference Laboratory

Interface Information

Legacy Code	HHAPS
Interface Order Code	3600503

Result Code	Name	LOINC Code	AOE/Prompt
3600504	Her. Hemolytic Anemia Sequencing Specimen	31208-2	Yes
3600506	Her. Hemolytic Anemia Sequencing Interp	35474-6	No

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003827 M 07/08/1968 56 Y

Referral Testing

Collected: 03/11/2025 08:17 Received: 03/11/2025 08:17

Test Name	Result	Flag	Ref-Ranges	Units	Site

Hereditary Hemolytic Anemia Panel Sequencing

Her. Hemolytic Anemia Sequencing Specimen	Whole Blood	ARRL
Her. Hemolytic Anemia Sequencing Interp	See Note	ARRL

RESULT
One mildly pathogenic variant was detected in the UGT1A1 gene.

PATHOGENIC MILD VARIANT
Gene: UGT1A1 (NC_000002.11)
Nucleic Acid Change: g.234668881TA[8]; Heterozygous
Commonly Known As: (TA)7 or *28 allele
Inheritance: Autosomal Recessive

INTERPRETATION
One copy of the mildly pathogenic variant, *28 (TA)7 promoter variant, was detected in the UGT1A1 gene by massively parallel sequencing. Pathogenic variants in UGT1A1 are inherited in an autosomal recessive manner and are associated with type I and type II Crigler-Najjar syndromes (MIM: 218800, 606785) and mild hyperbilirubinemia, known as Gilbert syndrome (MIM: 143500; OMIM (R)). Heterozygosity for the *28 (TA)7 promoter variant is associated with partially decreased UGT1A1 enzyme level but carriers are not expected to have hyperbilirubinemia. This result decreases the likelihood of, but does not exclude a diagnosis of Gilbert or Crigler-Najjar syndromes. Clinical presentation may be influenced by other genetic modifiers or co-existing conditions.
This genotype may impact the metabolism of certain drugs and dosing should be based on clinical findings. Guidelines for genotype-based dosing recommendations published by the Clinical Pharmacogenetic Implementation Consortium (CPIC) are located at:
https://cpicpgx.org/guidelines/.

Please refer to the background information included in this report for a list of the genes analyzed, methodology, and

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Test Name	Result	Flag	Ref-Ranges	Units	Site

limitations of this test.

Evidence for variant classification:
The UGT1A1 TATA box commonly has 6 TA repeats; however, there
can be 5 TA repeats, 7 TA repeats, or less commonly, 8 and 9 TA
repeats (Barbarino 2014). In vitro studies have shown that
UGT1A1 promoter expression decreases as the number of TA repeats
increases (Beutler 1998). Genotypes that are homozygous for
(TA)7, homozygous for (TA)8, or compound heterozygotes for
(TA)7, (TA)8, or (TA)9 cause reduced expression of UGT1A1 and
are associated with Gilbert syndrome, which is characterized by
increased bilirubin levels, and may have a neonatal appearance
of hereditary spherocytosis (Bosma 1995, Iolascon 1998, Nikolac
2008, Ostanek 2007). Individuals who are heterozygous for the
(TA)7 *28 promoter variant may have an increased risk for drug
toxicity when treated with irinotecan (Marcuello 2004, Riera
2018). Individuals who are homozygous for (TA)7 or compound
heterozygous for more than 6 TA repeats may experience an
increased incidence of atazanavir-associated hyperbilirubinemia
(Gammal 2016).

RECOMMENDATIONS
Genetic consultation is indicated, including a discussion of
medical screening and management.

COMMENTS
Likely benign and benign variants are not reported.
Variants in the following region(s) may not be detected by NGS
with sufficient confidence in this sample due to technical
limitations: None

REFERENCES
Barbarino JM et al. PharmGKB summary: very important
pharmacogene information for UGT1A1. Pharmacogenet
Genomics.

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EXAMPLE, REPORT W
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Test Name	Result	Flag	Ref-Ranges	Units	Site

2014 24:177-183. PMID: 24492252
Beutler E et al. Racial variability in the UDP-glucuronosyltransferase 1 (UGT1A1) promoter: a balanced polymorphism for regulation of bilirubin metabolism? Proc Natl
Acad Sci U S A. 1998 95:8170-8174. PMID: 9653159
Bosma PJ et al. The genetic basis of the reduced expression of
bilirubin UDP-glucuronosyltransferase 1 in Gilbert's syndrome. N
Engl J Med. 1995 333:1171-1175. PMID: 7565971
Gammal RS et al. Clinical Pharmacogenetics Implementation Consortium (CPIC) Guideline for UGT1A1 and Atazanavir Prescribing. Clin Pharmacol Ther. 2016 99:363-369. PMID: 26417955
Iolascon A et al. UGT1 promoter polymorphism accounts for increased neonatal appearance of hereditary spherocytosis. Blood. 1998 91:1093. PMID: 9446675
Marcuello E et al. UGT1A1 gene variations and irinotecan treatment in patients with metastatic colorectal cancer. Br J
Cancer. 2004 91:678-682. PMID: 15280927
Nikolac N et al. Rare TA repeats in promoter TATA box of the UDP
glucuronosyltranferase (UGT1A1) gene in Croatian subjects. Clin
Chem Lab Med. 2008 46:174-178. PMID: 18324905
OMIM(R) Copyright (C) 1996 - Present year, Johns Hopkins University All rights reserved.
Ostanek B et al. UGT1A1(TA)n promoter polymorphism--a new case
of a (TA)8 allele in Caucasians. Blood Cells Mol Dis. 2007 38:78-82. PMID: 17196409
Riera P et al. Relevance of CYP3A4*20, UGT1A1*37 and UGT1A1*28
variants in irinotecan-induced severe toxicity. Br J Clin Pharmacol. 2018 84:1389-1392. PMID: 29504153

This result has been reviewed and approved by Ganna Shestakova,
M.D., Ph.D.
BACKGROUND INFORMATION: Hereditary Hemolytic Anemia Panel, Sequencing

CHARACTERISTICS: Hereditary Hemolytic Anemia (HHA) comprises a diverse group of heterogeneous disorders characterized by premature red blood cell (RBC) destruction and anemia due to intrinsic RBC defects. Individuals with

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Test Name	Result	Flag	Ref-Ranges	Units	Site

HHA have decreased hemoglobin concentration, hematocrit and RBC count. Additional characteristics include blood smear abnormalities, such as spherocytes, acanthocytes, schistocytes, bite cells, stomatocytes, polychromasia and target cells. Presentation may include hyperbilirubinemia or jaundice due to red cell hemolysis. Causes of HHA involve RBC membrane defects (eg, hereditary spherocytosis), RBC enzymopathies (eg, glucose-6-phosphate dehydrogenase or pyruvate kinase deficiencies) and hemoglobinopathies.

EPIDEMIOLOGY: Incidence is estimated at 1:500-1:1,100.

CAUSE: Pathogenic germline variants in genes associated with defects in the RBC membrane proteins, deficiencies of RBC enzymes, or hemoglobinopathies.

INHERITANCE: Varies by gene; autosomal dominant, autosomal recessive or X-linked recessive.

GENES TESTED: AK1, ALDOA, ANK1, CDAN1, CYB5R3, EPB41, EPB42, G6PD, GCLC, GPI, GSR, GSS, HK1, NT5C3A, PFKM, PGK1, PIEZO1, PKLR, SEC23B, SLC4A1, SLCO1B1, SLCO1B3, SPTA1, SPTB, TPI1, UGT1A1, UGT1A6, UGT1A7

METHODOLOGY: Targeted capture of all coding exons and exon-intron junctions of the targeted genes, followed by massively parallel sequencing. Sanger sequencing was performed as necessary to fill in regions of low coverage and confirm reported variants. Human genome build 19 (Hg 19) was used for data analysis.

ANALYTICAL SENSITIVITY: The analytical sensitivity of this test is approximately 99 percent for single nucleotide variants (SNVs) and greater than 93 percent for insertions/duplications/deletions from 1-10 base pairs in size. Variants greater than 10 base pairs may be detected, but the analytical sensitivity may be reduced.

LIMITATIONS: A negative result does not exclude a heritable form of hemolytic anemia. This test only detects variants within the coding regions and intron-exon boundaries of the targeted genes. The genes of the alpha- and beta-globin clusters are not analyzed. Regulatory region variants and deep intronic variants will not be identified. Deletions/duplications/insertions of any size may not be detected by massive parallel sequencing. Diagnostic errors can occur due to rare sequence variations. In some cases,

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Test Name	Result	Flag	Ref-Ranges	Units	Site

variants may not be identified due to technical limitations in the presence of pseudogenes, repetitive, or homologous regions. This assay may not detect low-level somatic variants associated with disease. Interpretation of this test result may be impacted if this patient has had an allogeneic stem cell transplantation or recently received a blood transfusion. Non-coding transcripts were not analyzed.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Counseling and informed consent are recommended for genetic testing. Consent forms are available online.
Performed By: ARUP Laboratories
500 Chipeta Way
Salt Lake City, UT 84108
Laboratory Director: Jonathan R. Genzen, MD, PhD
CLIA Number: 46D0523979

Reported Date: 03/11/2025 08:19 HHAPS

Performing Site:
ARRL: ARUP REFERENCE LAB 500 Chipeta Way Salt Lake City UT 841081221

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

New Test Activation

Effective Date	4/29/2025
Name	Chromium, Urine
Code	UCRRA
CPT Code(s)	82570, 82495
Notes	New York DOH Approval Status: Yes

Specimen Requirements

Specimen Required	*Collect:* Random urine in acid washed container *Specimen Preparation:* Send 2.0 mL urine collected in an acid washed screw capped plastic container. Call lab for container. *Minimum Volume:* 0.5 mL *Transport Temperature:* Refrigerated
Alternate Specimen	Urine collected in a metal free plastic container.
Rejection Criteria	24 hour urine collection
Stability	Room temperature: 4 days Refrigerated: 14 days Frozen: 30 days

Performing Information

Methodology	Colorimetric (C) • Inductively Coupled Plasma/Mass Spectrometry (ICP/MS)
Reference Range	Chromium, Urine <2.0 ng/mL Chromium/Creatinine Ratio <5.0 mcg/g creat ACGIH Biological Exposure Index Increase during shift 10 mcg/g cr End-of-shift at end-of-work-week 30 mcg/g cr Creatinine, Random Urine ≤6 Months 2-28 mg/dL 7-11 Months 2-31 mg/dL 1-2 Years 2-110 mg/dL 3-8 Years 2-130 mg/dL 9-12 Years 2-160 mg/dL >12 Years Male 20-320 mg/dL >12 Years Female 20-275 mg/dL
Performed Days	Monday - Saturday
Turnaround Time	3 - 5 days
Performing Laboratory	Quest

Interface Information

Legacy Code	UCRRA
Interface Order Code	3401023

Result Code	Name	LOINC Code	AOE/Prompt
3401024	Chromium, Urine	5623-4	No
3401026	Chromium/Creatinine Ratio	13464-3	No
3401027	Creatinine, Random Urine	2161-8	No

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
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EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 36 Y

Referral Testing

Collected: 03/07/2025 15:06 Received: 03/07/2025 15:06

Test Name	Result	Flag	Ref-Ranges	Units	Site
Chromium, Urine					
Chromium, Urine	0.5			ng/mL	QHRL

ACGIH Biological Exposure Index:
Increase during shift: 10 mcg/g cr
End of shift at end of work week: 30 mcg/g cr
This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute Chantilly, VA. It has not been cleared or approved by the U.S. Food and Drug Administration. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

Chromium/Creatinine Ratio	0.5		<5.0	mcg/g cr	QHRL
Creatinine, Random Urine	105		20-320	mg/dL	QHRL

Test Performed by Quest, Chantilly,
Quest Diagnostics Nichols Institute,
14225 Newbrook Drive, Chantilly, VA 20151
Patrick W Mason, M.D., Ph.D., Director of Laboratories
(703) 802-6900, CLIA 49D0221801

Reported Date: 03/07/2025 15:06 UCRRA

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

H107000004
WX0000003826
Printed D&T: 03/07/25 15:06

Ordered By: CLIENT CLIENT
WX00000000002806

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

New Test Activation

Effective Date	4/29/2025
Name	Porphyrins, Fractionated, Quant, Random Urine
Code	UPORR
CPT Code(s)	84120
Notes	New York DOH Approval Status: Yes

Specimen Requirements

Specimen Required	*Collect:* Random urine, protect from light *Specimen Preparation:* Send 2.0 mL urine in an amber screw capped plastic vial. PROTECT FROM LIGHT. *Minimum Volume:* 1.5 mL *Transport Temperature:* Refrigerated
Alternate Specimen	Urine collected in a 5 g sodium carbonate container, Catheterized urine, first void clean catch urine
Rejection Criteria	Received room temperature, Not protected from light, pH <4.0
Stability	Room temperature: Unacceptable Refrigerated: 7 days Frozen: 30 days

Performing Information

Methodology	High Performance Liquid Chromatography (HPLC)
Reference Range	Uroporphyrin I 3.6-21.1 mcg/g creat Uroporphyrin III ≤5.6 mcg/g creat Heptacarboxyporphyrin ≤3.4 mcg/g creat Hexacarboxyporphyrin ≤6.3 mcg/g creat Pentacarboxyporphyrin ≤4.1 mcg/g creat Coproporphyrin I 6.5-33.2 mcg/g creat Coproporphyrin III 4.8-88.6 mcg/g creat Total Porphyrins 27.0-153.6 mcg/g creat
Performed Days	Sunday, Tuesday - Friday
Turnaround Time	7 - 9 days
Performing Laboratory	Quest

Interface Information

Legacy Code	UPORR
Interface Order Code	3400997

Result Code	Name	LOINC Code	AOE/Prompt
3400998	Uroporphyrin I	79127-7	No
3400999	Uroporphyrin III	79129-3	No
3401001	Heptacarboxyporphyrin	38163-2	No
3401002	Hexacarboxyporphyrin	38164-0	No
3401003	Pentacarboxyporphyrin	38161-6	No
3401004	Coproporphyrins I	48305-7	No
3401006	Coproporphyrins III	48306-5	No
3401007	Total Porphyrins	38160-8	No
3401008	Interpretation	44014-9	No

Warde Medical Laboratory

LABORATORY REPORT

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EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 36 Y

Referral Testing

Collected: 03/07/2025 15:24 Received: 03/07/2025 15:24

Test Name	Result	Flag	Ref-Ranges	Units	Site
Porphyrins, Fractionated, Quant, Random Urine					
Uroporphyrin I	12.4		3.6-21.1	mcg/g creat	QCRL
Uroporphyrin III	1.8		< OR = 5.6	mcg/g creat	QCRL
Heptacarboxyporphyrin	1.7		< OR = 3.4	mcg/g creat	QCRL
Hexacarboxyporphyrin	0.3		< OR = 6.3	mcg/g creat	QCRL
Pentacarboxyporphyrin	1.2		< OR = 4.1	mcg/g creat	QCRL
Coproporphyrins I	11.2		6.5-33.2	mcg/g creat	QCRL
Coproporphyrins III	32.2		4.8-88.6	mcg/g creat	QCRL
Total Porphyrins	32.2		27.0-153.6	mcg/g creat	QCRL
Interpretation	SEE NOTE				QCRL

All porphyrins tested were within the normal range.

This test may not detect elevated porphyrins if the patient is asymptomatic or is undergoing treatment.

Please be aware that some porphyrins degrade when samples are unprotected from light or are transported at refrigerated or ambient temperature.

Results reported as below reportable range are considered normal as there are no associations between low porphyrin levels and porphyrin disorders.

For additional information, please refer to
http://education.QuestDiagnostics.com/faq/FAQ223
(This link is being provided for informational/educational purposes only.)

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics. It has not been cleared or approved by FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.
Test Performed at:
Quest Diagnostics Nichols Institute
33608 Ortega Highway
San Juan Capistrano, CA 92675-2042 I Maramica MD, PhD, MBA

Reported Date: 03/07/2025 15:24 UPORR

Performing Site:
QCRL: QUEST DIAGNOSTICS REFERENCE LAB CAPISTRANO 33608 Ortega Highway San Juan Capistrano CA 92675

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

New Test Activation

Effective Date	4/29/2025
Name	Zinc, Random Urine
Code	UZNRA
CPT Code(s)	82570, 84630
Notes	New York DOH Approval Status: Yes

Specimen Requirements

Specimen Required	*Collect:* Random urine in acid washed container *Specimen Preparation:* Send 7.0 mL of urine in an acid washed screw capped plastic container. Call lab for container. *Minimum Volume:* 3.0 mL *Transport Temperature:* Refrigerated
Alternate Specimen	Urine collected in a metal-free container
Rejection Criteria	Hemolysis, Fecal contamination, 24 hour urine collection
Stability	Room temperature: 5 days Refrigerated: 7 days Frozen: 28 days

Performing Information

Methodology	Inductively Coupled Plasma/Mass Spectrometry (ICP/MS)
Reference Range	**Zinc, Random Urine** 100-810 mcg/g creat **Creatinine, Random Urine** ≤6 Months 2-28 mg/dL 7-11 Months 2-31 mg/dL 1-2 Years 2-110 mg/dL 3-8 Years 2-130 mg/dL 9-12 Years 2-160 mg/dL >12 Years Male 20-320 mg/dL >12 Years Female 20-275 mg/dL
Performed Days	Monday - Saturday
Turnaround Time	3 - 5 days
Performing Laboratory	Quest

Interface Information

Legacy Code	UZNRA
Interface Order Code	3401013

Result Code	Name	LOINC Code	AOE/Prompt
3401014	Zinc, Random Urine	13473-4	No
3401016	Creatinine, Random Urine	2161-8	No

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
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EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 36 Y

Referral Testing

Collected: 03/07/2025 15:21 Received: 03/07/2025 15:21

Test Name	Result	Flag	Ref-Ranges	Units	Site
Zinc, Random Urine					
Zinc, Random Urine	810		100-810	mcg/g creat	QHRL

(Note)
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.

Test Performed at:
MedFusion
2501 South State Highway 121, Suite 1100
Lewisville, TX 75067-8188 I J Frame MD, PhD

Creatinine, Random Urine	200		20-320	mg/dL	QHRL

MDF
med fusion
2501 South State Highway 121,Suite 1100
Lewisville TX 75067
972-966-7300
Ithiel James L. Frame, MD, PhD
Test Performed at:
MedFusion
2501 South State Highway 121, Suite 1100
Lewisville, TX 75067-8188 I J Frame MD, PhD

Reported Date: 03/07/2025 15:21 UZNRA

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

H107000010
WX0000003826
Printed D&T: 03/07/25 15:21

Ordered By: CLIENT CLIENT
WX00000000002806

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

Update Existing Test	
Effective Date	4/1/2025
Name	Calprotectin
Code	CALPT
Interface Order Code	3000049
Legacy Code	CALPT
Notes	Update to turnaround time.
Required Testing Changes	
Turnaround Time	**1 - 4 days**

Update Existing Test	
Effective Date	4/1/2025
Name	Fecal Calprotectin and Pancreatic Elastase Panel
Code	FCAPE
Interface Order Code	3000884
Legacy Code	FCAPE
Notes	Update to turnaround time.
Required Testing Changes	
Turnaround Time	**1 - 4 days**

Update Existing Test	
Effective Date	4/21/2025
Name	Huntington Disease (HD) CAG Repeat Expansion
Code	HDCAG
Interface Order Code	3600317
Legacy Code	HDCAG
Notes	Update to alternate specimen and methodology.
Required Testing Changes	
Alternate Specimen	**Whole blood: Pink (K2 EDTA)**
Methodology	**Polymerase Chain Reaction (PCR)/Capillary Electrophoresis**

Update Existing Test	
Effective Date	4/14/2025
Name	Hemoglobin A1c
Code	HGBAQ
Interface Order Code	3421620
Legacy Code	HGBA1CQ
Notes	Update to methodology.
Required Testing Changes	
Methodology	**Turbidimetric Inhibition Immunoassay**

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

Update Existing Test	
Effective Date	4/1/2025
Name	Pancreatic Elastase 1
Code	PEL1
Interface Order Code	3000883
Legacy Code	PEL1
Notes	Update to turnaround time.
Required Testing Changes	
Turnaround Time	**1 - 4 days**

Update Existing Test	
Effective Date	4/8/2025
Name	Rabies Antibody Screen (RFFIT)
Code	RABAR
Interface Order Code	3600025
Legacy Code	RABAR
Notes	Update to specimen requirements.
Required Testing Changes	
Specimen Required	*Collect:* Serum separator tube (SST) Separate specimens must be submitted when multiple tests are ordered *Specimen Preparation:* Centrifuge, separate serum from cells and send 2.0 mL serum in a sterile screw capped plastic vial. *Minimum Volume:* 1.0 mL ***Transport Temperature:*** **Frozen**

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

Update Existing Test	
Effective Date	4/29/2025
Name	Testosterone, Total, LC/MS/MS
Code	TESM
Interface Order Code	3000169
Legacy Code	TESM
Notes	Update to rejection criteria, reference range, performed days, and turnaround time.
Required Testing Changes	
Rejection Criteria	**Samples other than serum from plain red top collection containers including serum separator tube (SST), plasma, lipemic, hemolyzed, past stability.**
Reference Range	Age / Males (ng/dL) / Females (ng/dL) **<1 year / Not Established / Not Established** 1-5 years / ≤5 / ≤8 6-7 years / ≤25 / ≤20 8-10 years / ≤42 / ≤35 11 years / ≤260 / ≤40 12-13 years / ≤420 / ≤40 14-17.9 years / ≤1000 / ≤40 ≥18 years / 250-1100 / 2-45
Performed Days	**Monday - Friday**
Turnaround Time	**3 - 6 days**

Update Existing Test	
Effective Date	4/28/2025
Name	Tick ID with Reflex to Borrelia species DNA, RT-PCR, Tick
Code	TICKI
Interface Order Code	3515060
Legacy Code	TICKINFLX
Notes	Update to rejection criteria.
Required Testing Changes	
Rejection Criteria	Samples in anything but 70% alcohol, dried samples, **10% formalin specimens**

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

Update Existing Test	
Effective Date	4/21/2025
Name	Homovanillic Acid (HVA), Urine
Code	UHVA
Interface Order Code	3686400
Legacy Code	UHVARP
Notes	Update to specimen requirements, alternate specimen, and rejection criteria.
Required Testing Changes	
Specimen Required	*Collect:* 24 hour urine, refrigerate during collection ***Specimen Preparation:*** **Mix well and send a 4.0 mL urine aliquot in a screw capped plastic vial with total volume indicated.** *Minimum Volume:* 1.0 mL *Transport Temperature:* Refrigerated
Alternate Specimen	**No alternate specimen listed.**
Rejection Criteria	Specimens other than urine. **Random urine.**

Update Existing Test	
Effective Date	4/21/2025
Name	VMA and HVA, Urine
Code	UVMHA
Interface Order Code	3686500
Legacy Code	UVMAHVARP
Notes	Update to alternate specimen and rejection criteria.
Required Testing Changes	
Alternate Specimen	**No alternate specimen listed.**
Rejection Criteria	Specimens other than urine. **Random urine.**

Inactivate Test With Replacement			
Effective Date	4/29/2025		
Inactivated Test			
Name	AFB Antimicrob Suscep (MYCOB)		
Code	AFBAS		
Legacy Code	AFBAS		
Interface Order Code	3514220		
Replacement Test			
Name	Antimicrobial Susceptibility, AFB/Mycobacteria		
Code	ASAFB		
CPT Code(s)	CPT and price variable, based upon methodology. Charges will vary based on organism identified. An additional handling fee will be billed for all organisms submitted that are not in pure culture as indicated in the specimen requirements. If species identification is not provided, identification will be performed at ARUP. Additional charges apply. An additional charge will be added for drug requests that are not tested at ARUP and require sendout.		
Notes	New York DOH Approval Status: Yes		
Specimen Requirements			
Specimen Required	*Collect:* Growing isolate *Specimen Preparation:* Actively growing isolate in pure culture. *Transport Temperature:* Room temperature		
Rejection Criteria	Mixed cultures or non-viable organisms. Organisms submitted on an agar plate.		
Stability	Room temperature: 2 weeks Refrigerated: 2 weeks Frozen: 2 weeks		
Performing Information			
Methodology	Macrobroth Dilution/Microbroth Dilution		
Reference Range	See report		
Performed Days	Sunday - Saturday		
Turnaround Time	Varies		
Performing Laboratory	ARUP Reference Laboratory		
Interface Information			
Legacy Code	ASAFB		
Interface Order Code	3600499		
Result Code	**Name**	**LOINC Code**	**AOE/Prompt**
3600501	Organism ID		Yes
3600502	Antimicrobial Susceptibility, AFB/Mycobacteria		No

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003827 M 07/08/1968 56 Y

Referral Testing

Collected: 03/11/2025 08:05 Received: 03/11/2025 08:05

Test Name	Result	Flag	Ref-Ranges	Units	Site
Antimicrobial Susceptibility, AFB/Mycobacteria					
Organism ID	Mycobacterium intracellulare				WMAR
Antimicrobial Susceptibility, AFB/Mycobacteria	See Below				WMAR

```
Test Requested
Antimicrobial Susceptibility, AFB/Mycobacteria

Source: Respiratory
Body Site: Sputum
Free Text Sources: Resp

Final Report

Mycobacterium intracellulare
Organism identified by client

Susceptibility Results

Organism: Mycobacterium intracellulare

Amikacin                  Interpretation: SUSCEPTIBLE
                          MIC (ug/mL): 4
Clarithromycin            Interpretation: SUSCEPTIBLE
                          MIC (ug/mL): 0.25
Linezolid                 Interpretation: SUSCEPTIBLE
                          MIC (ug/mL): 8
Moxifloxacin              Interpretation: SUSCEPTIBLE
                          MIC (ug/mL): 1

Interpretive Information  Interpretation: SEE NOTE

For Mycobacterium avium-intracellulare complex, CLSI
recommends testing and reporting clarithromycin,
moxifloxacin, amikacin and linezolid. The reported amikacin
interpretation is for IV; if using amikacin (liposomal,
inhaled), the MIC interpretive breakpoints are <=64 ug/mL
Susceptible, >=128 ug/mL Resistant. The in vivo
effectiveness of Moxifloxacin and Linezolid for MAC disease
is unproven. Ethambutol, rifampin and rifabutin MIC results
are not reported because MIC values are not predictive of
clinical responses and may be misleading.

Susceptibility performed by a non-standardized methodology.
Interpret results in conjunction with clinical presentation.
Test developed and characteristics determined by ARUP
```

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003827 M 07/08/1968 56 Y

Referral Testing

Collected: 03/11/2025 08:05 Received: 03/11/2025 08:05

Test Name	Result	Flag	Ref-Ranges	Units	Site

Laboratories. See compliance Statement B: aruplab.com/CS.

Interpretive Results
INTERPRETIVE INFORMATION: Susceptibility, Mycobacteria

Units = ug/mL

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Performed by ARUP Laboratories
500 Chipeta Way, Salt Lake City, UT 84108
Jonathan R. Genzen, MD, PhD, Laboratory Director

Reported Date: 03/11/2025 08:12 ASAFB

Performing Site:
WMAR: ARUP LABORATORIES 500 Chipeta Way Salt Lake City UT 841081221

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

Inactivate Test With Replacement	
Effective Date	4/14/2025
Inactivated Test	
Name	Cytomegalovirus DNA, Quantitative, Real-Time PCR
Code	CMVQR
Legacy Code	CMVQR
Interface Order Code	3435370
Replacement Test	
Name	Cytomegalovirus DNA, Quantitative, Real-Time PCR, MISC
Code	CMVRT
CPT Code(s)	87497
Notes	New York DOH Approval Status: Yes
Specimen Requirements	
Specimen Required	*Collect:* Serum separator tube (SST) *Specimen Preparation:* Centrifuge, separate serum and send 1.0 mL serum in a screw capped plastic vial. *Minimum Volume:* 0.5 mL *Transport Temperature:* Refrigerated
Alternate Specimen	Serum: Red top, Cerebrospinal fluid (CSF) collected in a sterile, plastic leak proof container, Amniotic fluid collected in a sterile, plastic leak proof container.
Rejection Criteria	Whole blood green sodium or lithium heparin, Whole blood Lavender EDTA, Plasma.
Stability	Room temperature: 48 hours Refrigerated: 8 days Frozen: 30 days
Performing Information	
Methodology	Real-Time Polymerase Chain Reaction (PCR)
Reference Range	CMV DNA, QN, PCR (IU/mL): Not Detected CMV DNA, QN, PCR (Log IU/mL): Not Detected
Performed Days	Sunday - Saturday
Turnaround Time	3 - 5 days
Performing Laboratory	Quest
Interface Information	
Legacy Code	CMVRT
Interface Order Code	3401047

Result Code	Name	LOINC Code	AOE/Prompt
3401054	Source		Yes
3401048	CMV DNA, QN PCR		No
3401049	CMV DNA, QN PCR		No

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 36 Y

Referral Testing

Collected: 03/11/2025 08:12 Received: 03/11/2025 08:12

Test Name	Result	Flag	Ref-Ranges	Units	Site
Cytomegalovirus DNA, Quantitative, Real-Time PCR, MISC					
Source	CSF				QCRL
CMV DNA, QN PCR	2.3			IU/mL	QCRL
CMV DNA, QN PCR	3.5			Log IU/mL	QCRL

Test Performed at:
Quest Diagnostics Nichols Institute
33608 Ortega Highway
San Juan Capistrano, CA 92675-2042 I Maramica MD, PhD

Reported Date: 03/11/2025 08:13 CMVRT

Performing Site:
QCRL: QUEST DIAGNOSTICS REFERENCE LAB CAPISTRANO 33608 Ortega Highway San Juan Capistrano CA 92675

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

H111000003
WX0000003826
Printed D&T: 03/11/25 08:14

Ordered By: CLIENT CLIENT
WX00000000002806

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1

Inactivate Test With Replacement			
Effective Date	4/29/2025		
Inactivated Test			
Name	Epstein Barr Virus DNA PCR, Qual.		
Code	EBVQL		
Legacy Code	EBVDPCRQ		
Interface Order Code	3421440		
Replacement Test			
Name	Epstein-Barr Virus DNA PCR, Qualitative, CSF		
Code	EBCQL		
CPT Code(s)	87798		
Notes	New York DOH Approval Status: No		
Specimen Requirements			
Specimen Required	*Collect:* Cerebrospinal fluid (CSF) *Specimen Preparation:* Send 1.0 mL Cerebrospinal fluid (CSF) in a sterile leak proof container. *Minimum Volume:* 0.5 mL *Transport Temperature:* Refrigerated		
Rejection Criteria	Plasma, serum		
Stability	Room temperature: 24 hours Refrigerated: 5 days Frozen (-20°C): 30 days Frozen (-70°C): 6 months		
Performing Information			
Methodology	Polymerase Chain Reaction (PCR)		
Reference Range	Not detected		
Performed Days	Monday - Friday		
Turnaround Time	3 days		
Performing Laboratory	Warde Medical Laboratory		
Interface Information			
Legacy Code	EBCQL		
Interface Order Code	3000409		
Result Code	**Name**	**LOINC Code**	**AOE/Prompt**
3000411	Epstein-Barr Virus DNA, Qualitative	23858-4	No

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003827 M 07/08/1968 56 Y

Molecular

Collected: 03/11/2025 08:26 Received: 03/11/2025 08:26

Test Name	Result	Flag	Ref-Ranges	Units	Site
Epstein-Barr DNA PCR, Qualitative, CSF					
Epstein-Barr Virus DNA, Qualitative	**DETECTED**	**AB**	Not detected		WMRL

This test uses the polymerase chain reaction to amplify regions of the Epstein Barr Virus BLLF1 gene. Real-time detection and quantification are used to determine the viral concentration. The analytical measurement range is 500 to 5 million IU/mL (2.7 to 6.7 log(10) IU/mL). The qualitative limit of detection is 50 IU/mL (1.7 log(10) IU/mL).

Specimens reported as "DETECTED" but <500 IU/mL, contain detectable levels of EB Virus DNA, but the viral load is below the limit of quantification. A "Not Detected" result does not rule out infection.

This test was developed and the performance characteristics determined by Warde Medical Laboratory. 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.

Reported Date: 03/11/2025 08:27 EBCQL

Performing Site:
WMRL: WARDE MEDICAL LABORATORY 300 West Textile Road Ann Arbor MI 48108

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

H111000006
WX0000003827
Printed D&T: 03/11/25 08:27

Ordered By: KAJAL SITWALA, MD, PHD
WX00000000002516

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

Inactivate Test With Replacement

Effective Date	4/29/2025

Inactivated Test

Name	Epstein-Barr Virus DNA, Quant Real-Time PCR, CSF
Code	EPBAV
Legacy Code	EPBAV
Interface Order Code	3400475

Replacement Test

Name	Epstein-Barr Virus DNA PCR, Quantitative, CSF
Code	EBCQN
CPT Code(s)	87799
Notes	New York DOH Approval Status: No

Specimen Requirements

Specimen Required	*Collect:* Cerebrospinal fluid (CSF) *Specimen Preparation:* Send 1.0 mL Cerebrospinal fluid (CSF) in a sterile leak proof container. *Minimum Volume:* 0.5 mL *Transport Temperature:* Refrigerated
Rejection Criteria	Plasma, serum
Stability	Room temperature: 24 hours Refrigerated: 5 days Frozen (-20°C): 30 days Frozen (-70°C): 6 months

Performing Information

Methodology	Polymerase Chain Reaction (PCR)
Reference Range	Not detected
Performed Days	Monday - Friday
Turnaround Time	3 days
Performing Laboratory	Warde Medical Laboratory

Interface Information

Legacy Code	EBCQN
Interface Order Code	3000412

Result Code	Name	LOINC Code	AOE/Prompt
3000413	Epstein-Barr Virus DNA, Qualitative	23858-4	No
3000414	Epstein-Barr Virus DNA, Quantitative	101817-5	No
3000416	Log Epstein-Barr Virus DNA	53774-6	No

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 36 Y

Molecular

Collected: 03/11/2025 08:28 Received: 03/11/2025 08:28

Test Name	Result	Flag	Ref-Ranges	Units	Site
Epstein-Barr Virus DNA PCR, Quantitative, CSF					
Epstein-Barr Virus DNA, Qualitative	Not detected		Not detected		WMRL
Epstein-Barr Virus DNA, Quantitative	<500		<500	IU/mL	WMRL
Log Epstein-Barr Virus DNA	<2.70		<2.70	Log (10) IU/mL	WMRL

This test uses the polymerase chain reaction to amplify regions of the Epstein Barr Virus BLLF1 gene. Real-time detection and quantification are used to determine the viral concentration. The analytical measurement range is 500 to 5 million IU/mL (2.7 to 6.7 log(10) IU/mL). The qualitative limit of detection is 50 IU/mL (1.7 log(10) IU/mL).

Specimens reported as "DETECTED" but <500 IU/mL, contain detectable levels of EB Virus DNA, but the viral load is below the limit of quantification. A "Not Detected" result does not rule out infection.

This test was developed and the performance characteristics determined by Warde Medical Laboratory. 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.

Reported Date: 03/11/2025 08:28 EBCQN

Performing Site:
WMRL: WARDE MEDICAL LABORATORY 300 West Textile Road Ann Arbor MI 48108

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

H111000007
WX0000003826
Printed D&T: 03/11/25 08:28

Ordered By: CLIENT CLIENT
WX00000000002806

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

Inactivate Test With Replacement

Effective Date	5/5/2025

Inactivated Test

Name	Comprehensive Volatiles Panel, Blood
Code	INPBL
Legacy Code[1]	INPBL
Interface Order Code	3300171

Replacement Test

Name	Comprehensive Volatiles Panel, Blood
Code	CVLPB
CPT Code(s)	82441
Notes	New York DOH Approval Status: Yes

Specimen Requirements

Specimen Required	*Collect:* Lavender EDTA *Specimen Preparation:* Send 9.0 mL whole blood in a screw capped plastic vial. Tube should be filled to prevent loss of volatile analyte into headspace. Ensure that container remains tightly sealed. *Minimum Volume:* 4.5 mL *Transport Temperature:* Refrigerated
Alternate Specimen	Whole blood: Sodium fluoride/Potassium Oxalate (Gray)
Stability	Room temperature: Undetermined Refrigerated: Undetermined Frozen: Undetermined

Performing Information

Methodology	Gas Chromatography, Gas Chromatography/Mass Spectrometry, Headspace Gas Chromatography
Reference Range	See report
Performed Days	Monday - Thursday
Turnaround Time	7 - 9 days
Performing Laboratory	NMS Labs

Interface Information

Legacy Code	CVLPB
Interface Order Code	3300373

Result Code	Name	LOINC Code	AOE/Prompt
3300172	Volatiles		No
3300174	Ethane	13007-0	No
3300175	Propane	13022-9	No
3300176	Isobutane	12992-4	No
3300177	n-Butane	9497-9	No
3300391	Isoflurane		No
3300392	Enflurane		No
3300374	Dichloromethane		No
3300376	Trichlorotrifluoroethane		No
3300377	Halothane		No
3300378	1,1-Dichloroethane		No

3300379	Chloroform		No
3300381	1,2-Dichloroethane		No
3300382	1,1,1-Trichloroethane		No
3300383	Carbon Tetrachloride		No
3300384	Trichloroethylene		No
3300386	Methoxyflurane		No
3300387	Tetrachloroethylene		No
3300388	1,1,2,2-Tetrachloroethane		No
3300179	1,1-Difluoroethane		No
3300181	1,1,1,2-Tetrafluoroethane		No
3300173	Methane	14166-3	No

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003827 M 07/08/1968 56 Y

Referral Testing

Collected: 03/11/2025 08:29 Received: 03/11/2025 08:29

Test Name	Result	Flag	Ref-Ranges	Units	Site
Comprehensive Volatiles Panel, Blood					
Volatiles	None Detected				NMRL

Comment:
Volatiles:
Acetaldehyde, Acetone, Acetonitrile, Acrylonitrile,
Benzene, Butane, n-Butanol, sec-Butanol, tert-Butanol,
iso-Butanol, n-Butyl Acetate, Carbon Tetrachloride,
Chloroform, Cumene, Cyclohexane, 1,1-Dichloroethane,
1,2-Dichloroethane, trans-1,2-Dichloroethylene,
Enflurane, Ethanol, Ethyl Benzene, Ethyl Ether, Ethyl
t-Butyl Ether, Freon 11, Freon 12, Freon 113,
Halothane, n-Heptane, n-Hexane, Isoamyl Alcohol,
Isoflurane, Isopropanol, Isovaleraldehyde, Methanol,
Methoxyflurane, Methyl Ethyl Ketone, Methyl Isobutyl
Ketone, Methyl n-Butyl Ketone, Methyl t-Butyl Ether,
Methylene Chloride, Methylpentanes, n-Nonane,
n-Octane, Paraldehyde, n-Pentane, Propane, Propanol,
Styrene, Tetrachloroethane, Perchloroethylene
(Tetrachloroethylene), Tetrahydrofuran, Toluene,
1,1,1-Trichloroethane, Trichloroethylene, Xylenes
Reporting limit range: 0.05-50 mcg/mL.
Analysis by Headspace Gas Chromatography (GC)

Ethane	None Detected			ppm (v/v)	NMRL

Reporting Limit: 2.0 ppm (v/v)
Analysis by Gas Chromatography (GC)

Propane	None Detected			ppm (v/v)	NMRL

Reporting Limit: 2.0 ppm (v/v)
Analysis by Gas Chromatography (GC)

Isobutane	None Detected			ppm (v/v)	NMRL

Reporting Limit: 2.0 ppm (v/v)
Analysis by Gas Chromatography (GC)

n-Butane	None Detected			ppm (v/v)	NMRL

Reporting Limit: 2.0 ppm (v/v)
Analysis by Gas Chromatography (GC)

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003827 M 07/08/1968 56 Y

Referral Testing

Collected: 03/11/2025 08:29 Received: 03/11/2025 08:29

Test Name	Result	Flag	Ref-Ranges	Units	Site
Isoflurane	None Detected			mcg/mL	NMRL

Reporting Limit: 0.050 mcg/mL
Synonym(s): Forane(R)
Average steady-state blood levels following inhalation for 1 hour at end-tidal air concentrations of 0.3, 0.6 or 1.15% were 20, 40 and 77 mcg/mL, respectively.
Analysis by Gas Chromatography (GC)

Enflurane	None Detected			mcg/mL	NMRL

Reporting Limit: 0.10 mcg/mL
Synonym(s): Ethrane
Average peak venous blood concentrations after 30 minutes of anesthesia: 95 mcg/mL.
Analysis by Gas Chromatography (GC)

Dichloromethane	None Detected			mcg/mL	NMRL

Reporting Limit: 0.50 mcg/mL
Synonym(s): Methylene Chloride
Exposure to 200 ppm (TLV) in air for two hours produced up to 2.0 mcg/mL blood.
Analysis by Gas Chromatography (GC)

Trichlorotrifluoroethane	None Detected			mcg/mL	NMRL

Reporting Limit: 0.050 mcg/mL
Synonym(s): Freon 113
Analysis by Gas Chromatography (GC)

Halothane	None Detected			mcg/mL	NMRL

Reporting Limit: 0.10 mcg/mL
Synonym(s): Fluothane
Surgical anesthetic levels: 80-260 mcg/mL blood.
Analysis by Gas Chromatography (GC)

1,1-Dichloroethane	None Detected			mcg/mL	NMRL

Reporting Limit: 0.50 mcg/mL
Analysis by Gas Chromatography (GC)

Chloroform	None Detected			mcg/mL	NMRL

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003827 M 07/08/1968 56 Y

Referral Testing

Collected: 03/11/2025 08:29 Received: 03/11/2025 08:29

Test Name	Result	Flag	Ref-Ranges	Units	Site
Reporting Limit: 0.050 mcg/mL Synonym(s): Trichloromethane Toxic: Greater than 70 mcg/mL. Analysis by Gas Chromatography (GC)					
1,2-Dichloroethane	None Detected			mcg/mL	NMRL
Reporting Limit: 0.50 mcg/mL Analysis by Gas Chromatography (GC)					
1,1,1-Trichloroethane	None Detected			mcg/mL	NMRL
Reporting Limit: 0.050 mcg/mL Synonym(s): Methyl Chloroform Exposure to 250 ppm in air for 30 minutes produced an average of 1.4 mcg/mL blood. Analysis by Gas Chromatography (GC)					
Carbon Tetrachloride	None Detected			mcg/mL	NMRL
Reporting Limit: 0.050 mcg/mL Synonym(s): Tetrachloromethane Analysis by Gas Chromatography (GC)					
Trichloroethylene	None Detected			mcg/mL	NMRL
Reporting Limit: 0.050 mcg/mL Synonym(s): Trichloroethene Exposure to 100 ppm in air for three hours produced an average of 1.4 mcg/mL blood. Analysis by Gas Chromatography (GC)					
Methoxyflurane	None Detected			mcg/mL	NMRL
Reporting Limit: 0.050 mcg/mL Analysis by Gas Chromatography (GC)					
Tetrachloroethylene	None Detected			mcg/mL	NMRL
Reporting Limit: 0.010 mcg/mL Synonym(s): Perchloroethylene Biological Exposure Index (ACGIH): Following workplace exposure to Tetrachloroethylene: 0.5 mcg/mL in a blood specimen collected prior to shift after at least two					

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003827 M 07/08/1968 56 Y

Referral Testing

Collected: 03/11/2025 08:29 Received: 03/11/2025 08:29

Test Name	Result	Flag	Ref-Ranges	Units	Site
consecutive workdays with exposure. Analysis by Gas Chromatography (GC)					
1,1,2,2-Tetrachloroethane	None Detected			mcg/mL	NMRL
Reporting Limit: 0.050 mcg/mL Analysis by Gas Chromatography (GC)					
1,1-Difluoroethane	None Detected			mcg/mL	NMRL
Reporting Limit: 0.14 mcg/mL Synonym(s): Freon 152a 1,1-Difluoroethane (DFE) is a colorless and essentially odorless gas that is used as a non-ozone depleting propellant found in many consumer products, electronic cleaners, and as a refrigerant and chemical intermediate. DFE inhalation can cause euphoria, disorientation and altered mental state. Due to its volatility and rapid elimination of this compound, the measured concentration may be lower than the concentration present at the time of specimen collection. Analysis by Gas Chromatography/Mass Spectrometry (GC/MS)					
1,1,1,2-Tetrafluoroethane	None Detected			mcg/mL	NMRL
Reporting Limit: 0.14 mcg/mL Synonym(s): norflurane; Dymel 134a; Genetron 134a; HFC-134a; tetrafluoroethane; Suva 134a; R134a Comment: Substance(s) known to interfere with the identity and/or quantity of the reported result: Chloromethane, Pentafluoroethane 1,1,1,2-tetrafluoroethane (TFE) is a colorless gas with a faint ether-like odor that is used as a non-ozone depleting propellant found in many commonly used consumer products and electronic cleaners and it is also used as a refrigerant. TFE belongs to a class of compounds that has been recognized as a substance of abuse that can lead to serious injury and death. Like other fluorinated hydrocarbons, inhalation of 1,1,1,2-TFE may result in a feeling of euphoria and loss of inhibition; however, in higher concentrations, abuse may lead to cardiac dysrhythmias and sudden death. Analysis by Gas Chromatography/Mass Spectrometry					

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003827 M 07/08/1968 56 Y

Referral Testing

Collected: 03/11/2025 08:29 Received: 03/11/2025 08:29

Test Name	Result	Flag	Ref-Ranges	Units	Site
(GC/MS)					
Methane	None Detected			mcg/mL	NMRL

Reporting Limit: 0.98 mcg/mL
Analysis by Gas Chromatography/Mass Spectrometry (GC/MS)
This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the US Food and Drug Administration.
Digital data review may have taken place remotely by qualified NMS staff utilizing a secure VPN connection for some or all of the reported results. This is in accordance with and follows CLIA regulations.

Testing performed at NMS Labs, Inc.
200 Welsh Road
Horsham, PA 19044-2208
CLIA 39D0197898

Reported Date: 03/11/2025 08:40 CVLPB

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

Inactivate Test With Replacement			
Effective Date	4/29/2025		
Inactivated Test			
Name	Lipoprotein LP(a)		
Code	LPROA		
Legacy Code	LPROA		
Interface Order Code	3096200		
Replacement Test			
Name	Lipoprotein LP(a)		
Code	LPA		
CPT Code(s)	83695		
Notes	New York DOH Approval Status: No		
Specimen Requirements			
Specimen Required	*Patient Preparation*: Collect specimen after 12 hour fast. Do not collect blood during active inflammation or 1 month following a MI or stroke. *Collect*: Serum separator tube (SST) *Specimen Preparation*: Centrifuge, separate serum from cells and send 1.0 mL serum in a screw capped plastic vial. *Minimum Volume*: 0.2 mL *Transport Temperature*: Refrigerated		
Alternate Specimen	Serum: Red top Plasma: Lavender EDTA, Lithium Heparin, Sodium Heparin, Sodium EDTA, Potassium EDTA, Citrate.		
Stability	Room temperature: Unacceptable Refrigerated: 14 days Frozen (-70°C): 1 month		
Performing Information			
Methodology	Turbidimetry		
Reference Range	<=75 nmol/l		
Performed Days	Tuesday, Friday		
Turnaround Time	1 - 4 days		
Performing Laboratory	Warde Medical Laboratory		
Interface Information			
Legacy Code	LPA		
Interface Order Code	3000408		
Result Code	**Name**	**LOINC Code**	**AOE/Prompt**
3096200	LP(a)	10835-7	No

LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988

Collected: 03/11/2025 08:21 Received: 03/11/2025 08:21

Test Name	Result	Flag	Ref-Ranges	Units	Site
LP(a)	75		0-75	nmol/l	WMRL

≥125 nmol/L is an accepted target in American College of Cardiology/American Heart Association (ACC/AHA) guidelines.

≥100 nmol/L is an accepted target in the Canadian Cardiovascular Society (CCS) guidelines.

<75 nmol/L is considered normal, 50-125 nmol/L intermediate, and >125 nmol/L abnormal in the European Atherosclerotic Society (EAS) consensus statement.

>100 nmol/L is accepted as a risk-enhancing cutoff in the National Lipid Association (NLA) scientific statement.

Performing Site:
WMRL: Warde Medical Laboratory 300 West Textile Road Ann Arbor MI 48108 (800)876-6522

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

Inactivate Test With Replacement

Effective Date	4/29/2025

Inactivated Test

Name	Testosterone, Free, Bioavailable and Total, MS
Code	TESBQ
Legacy Code[1]	TESFBTQ
Interface Order Code	3422000

Replacement Test

Name	Testosterone, Free, Bioavailable and Total, MS
Code	TESB
CPT Code(s)	84403, 84270, 82040
Notes	New York DOH Approval Status: No

Specimen Requirements

Specimen Required	*Collect:* Red top *Specimen Preparation:* Centrifuge, separate serum from cells and send 3.0 mL serum in a screw capped plastic vial. *Minimum Volume:* 2.0 mL *Transport Temperature:* Refrigerated
Rejection Criteria	Samples other than serum from plain red top collection tubes, serum separator tubes (SST), plasma samples, lipemic samples, hemolyzed samples, and samples received past stability.
Stability	Room temperature: 8 hours Refrigerated: 7 days Frozen: 2 months

Performing Information

Methodology	Liquid Chromatography - Tandem Mass Spectrometry (LC/MS/MS), Calculation, Nephelometry, Immunochemiluminescent Assay

Reference Range

Testosterone, Total, LC/MS/MS:

	Male (ng/dL)	Female (ng/dL)
<1 year	Not Established	Not Established
1-5 years	<=5	<=8
6-7 years	<=25	<=20
8-10 years	<=42	<=35
11 years	<=260	<=40
12-13 years	<=420	<=40
14-17.9 years	<=1000	<=40
≥18 years	250-1100	2-45

Testosterone, Free:	Male (pg/mL)	Female (pg/mL)
<1 year	Not Established	Not Established
1-11 years	<=1.3	<=1.5
12-13 years	<=64.0	<=1.5
14-17 years	4.0-100.0	<=3.6
18-69 years	46.0-224.0	0.2-5.0
70-89 years	6.0-73.0	0.3-5.0
>89 years	Not Established	Not Established

	Testosterone, Biovail: **Male (ng/dL)** **Female (ng/dL)** <1 year Not Established Not Established 1-11 years <5.5 <3.5 12-13 years <140.1 <3.5 14-17 years 8.0-210.0 <7.9 18-69 years 110.0-575.0 0.5-8.5 70-89 years 15.0-150.0 0.5-8.8 >89 years Not Established Not Established **Sex Hormone Binding Globulin:** **Female:** 20-46 years of age, non pregnant: 18-136 nmol/L 47-91 years of age, post menopausal: 17-125 nmol/L Reference ranges are not available for females under the age of 20 years or over The age of 91 years. **Male:** >=20 years of age: 13-90 nmol/L Reference ranges are not available for males under the age of 20 years. **Albumin:** Adults 18 years and older: 3.5-5.2 g/dL
Performed Days	Monday - Friday
Turnaround Time	3 - 6 days
Performing Laboratory	Warde Medical Laboratory

Interface Information

Legacy Code	TESB
Interface Order Code	3000403

Result Code	Name	LOINC Code	AOE/Prompt
3000169	Testosterone, Total, LC/MS/MS	2986-8	No
3000404	Testosterone, Free		No
3000406	Testosterone, Bioavail		No
3000391	Sex Hormone Binding Globulin	13967-5	No
3000407	Albumin	1751-7	No

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003827 M 07/08/1968 56 Y

Immunochemistry

Collected: 03/11/2025 07:58 Received: 03/11/2025 07:58

Test Name	Result	Flag	Ref-Ranges	Units	Site
Testosterone, Free, Bioavailable and Total, MS					
Testosterone, Total, LC/MS/MS	300		250 - 1100	ng/dL	WMRL
This test was developed and its performance characteristics determined by Warde Medical Laboratory in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration. This test is used for patient testing purposes. It should not be regarded as investigational or for research.					
Testosterone, Free	70.6		46.0 - 224.0	pg/mL	WMRL
Free and bioavailable testosterone are calculated from measured values of total testosterone, albumin, and SHBG. Total testosterone is measured by liquid chromatography-mass spectrometry (LC-MS/MS); albumin and SHBG are measured by immunoassay.					
Testosterone, Bioavail	129.9		110.0 - 575.0	ng/dL	WMRL
Sex Hormone Binding Globulin	15		13 - 90	nmol/L	WMRL
Albumin	4.0		3.5 - 5.2	g/dL	WMRL

Reported Date: 03/11/2025 08:00 TESB

Performing Site:
WMRL: WARDE MEDICAL LABORATORY 300 West Textile Road Ann Arbor MI 48108

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

H111000000
WX0000003827
Printed D&T: 03/11/25 08:00

Ordered By: KAJAL SITWALA, MD, PHD
WX00000000002516

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 36 Y

Immunochemistry

Collected: 03/11/2025 08:02 Received: 03/11/2025 08:02

Test Name	Result	Flag	Ref-Ranges	Units	Site
Testosterone, Free, Bioavailable and Total, MS					
Testosterone, Total, LC/MS/MS	25		2 - 45	ng/dL	WMRL
This test was developed and its performance characteristics determined by Warde Medical Laboratory in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration. This test is used for patient testing purposes. It should not be regarded as investigational or for research.					
Testosterone, Free	3.2		0.2 - 5.0	pg/mL	WMRL
Free and bioavailable testosterone are calculated from measured values of total testosterone, albumin, and SHBG. Total testosterone is measured by liquid chromatography-mass spectrometry (LC-MS/MS); albumin and SHBG are measured by immunoassay.					
Testosterone, Bioavail	5.9		0.5 - 8.5	ng/dL	WMRL
Sex Hormone Binding Globulin	30			nmol/L	WMRL
Female:					
20-46 years of age, non pregnant			18-136	nmol/L	
47-91 years of age, post menopausal			17-125	nmol/L	
Reference ranges are not available for females under the age of 20 years or over the age of 91 years.					
Albumin	4.0		3.5 - 5.2	g/dL	WMRL

Reported Date: 03/11/2025 08:03 TESB

Performing Site:
WMRL: WARDE MEDICAL LABORATORY 300 West Textile Road Ann Arbor MI 48108

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

H111000001
WX0000003826
Printed D&T: 03/11/25 08:03

Ordered By: CLIENT CLIENT
WX00000000002806

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1

Inactivate Test With Replacement

Effective Date	4/29/2025

Inactivated Test

Name	Chromium, Urine
Code	UCHR
Legacy Code[1]	UCHR
Interface Order Code	3600060

Replacement Test

Name	Chromium, 24-Hour Urine
Code	UCR24
CPT Code(s)	82495, 82570 (81050 may be added at an additional charge for volume measurement)
Notes	New York DOH Approval Status: Yes

Specimen Requirements

Specimen Required	*Collect:* 24 hour urine in acid washed container *Specimen Preparation:* Send 2.0 mL of urine in an acid washed screw capped plastic container. Record total volume on container label. Call lab for collection container. *Minimum Volume:* 0.5 mL *Transport Temperature:* Refrigerated
Alternate Specimen	Urine collected in a metal-free container.
Rejection Criteria	Random urine
Stability	Room temperature: 4 days Refrigerated: 14 days Frozen: 30 days

Performing Information

Methodology	Atomic Absorption (AA)
Reference Range	Chromium <2.0 ng/mL Chromium/Creatinine Ratio <5.0 mcg/g cr Creatinine, 24 Hour Urine <3 Years Not established 3-8 Years 0.10-0.80 g/24 h 9-12 Years 0.20-1.40 g/24 h 13-17 Years 0.40-1.90 g/24 h >17 Years 0.50-2.15 g/24 h
Performed Days	Monday - Saturday
Turnaround Time	3 - 4 days
Performing Laboratory	Quest

Interface Information

Legacy Code	UCR24
Interface Order Code	3401017

Result Code	Name	LOINC Code	AOE/Prompt
3401018	Total Volume	3167-4	Yes
3401019	Chromium/Creatinine Ratio	29919-8	No
3401021	Chromium	30923-7	No

3401022	Creatinine, 24-Hour Urine	2162-6	No

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 36 Y

Referral Testing

Collected: 03/07/2025 15:16 Received: 03/07/2025 15:16

Test Name	Result	Flag	Ref-Ranges	Units	Site
Chromium, 24-Hour Urine					
Total Volume	1500				QHRL
Chromium/Creatinine Ratio	1.0		<5.0	mcg/g cr	QHRL
Chromium	1.0		<2.0	ng/mL	QHRL

ACGIH Biological Exposure Index:

Increase during shift: 10 mcg/g cr
End of shift at end of work week: 30 mcg/g cr

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute Chantilly, VA. It has not been cleared or approved by the U.S. Food and Drug Administration. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

Creatinine, 24-Hour Urine	1.50		0.50-2.15	g/24h	QHRL

Test Performed at:
Quest Diagnostics/Nichols Chantilly
14225 Newbrook Dr.
Chantilly, VA 20151-2228 P W Mason MD, PhD

Reported Date: 03/07/2025 15:16 UCR24

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

H107000005
WX0000003826
Printed D&T: 03/07/25 15:16

Ordered By: CLIENT CLIENT
WX00000000002806

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

Inactivate Test With Replacement

Effective Date	4/29/2025

Inactivated Test

Name	Porphyrins Fraction and Quant Ur
Code	UPORA
Legacy Code	UPORPHARP
Interface Order Code	3687300

Replacement Test

Name	Porphyrins, Fractionated, Quant, 24-Hour Urine
Code	UPO24
CPT Code(s)	84120
Notes	New York DOH Approval Status: Yes

Specimen Requirements

Specimen Required	*Collect:* 24 hour urine, refrigerate and protect from light during collection *Specimen Preparation:* Mix well and send 2.0 mL urine in an amber screw capped plastic vial. PROTECT FROM LIGHT. Record 24 hour urine volume on test requisition and specimen label. *Minimum Volume:* 1.0 mL *Transport Temperature:* Refrigerated
Alternate Specimen	Urine collected in a 5 g sodium carbonate container
Rejection Criteria	Received room temperature, Not protected from light, pH <4.0
Stability	Room temperature: Unacceptable Refrigerated: 7 days Frozen: 30 days

Performing Information

Methodology	High Performance Liquid Chromatography (HPLC)
Reference Range	Uroporphyrin I 4.1-22.4 mcg/24 h Uroporphyrin III 0.7-7.4 mcg/24 h Heptacarboxyporphyrin ≤3.3 mcg/24 h Hexacarboxyporphyrin ≤10 mcg/24 h Pentacarboxyporphyrin ≤4.6 mcg/24 h Coproporphyrin I 7.1-48.7 mcg/24 h Coproporphyrin III 11.0-148.5 mcg/24 h Total Porphyrins 35.0-210.7 mcg/24 h
Performed Days	Tuesday - Saturday
Turnaround Time	3 - 7 days
Performing Laboratory	Quest

Interface Information

Legacy Code	UPO24
Interface Order Code	3400983

Result Code	Name	LOINC Code	AOE/Prompt
3400984	Total Volume	3167-4	Yes
3400986	Uroporphyrin I	79126-9	No
3400987	Uroporphyrin III	79128-5	No
3400988	Heptacarboxyporphyrin	24462-4	No

3400989	Hexacarboxyporphrin	9537-3	No
3400991	Pentacarboxyporphyrin	9730-3	No
3400992	Coproporphyrin I	6877-5	No
3400993	Coproporphyrin III	6878-3	No
3400994	Total Porphyrins	10885-2	No
3400996	Interpretation	49292-6	No

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 36 Y

Referral Testing

Collected: 03/07/2025 15:28 Received: 03/07/2025 15:28

Test Name	Result	Flag	Ref-Ranges	Units	Site
Porphyrins, Fractionated, Quant, 24-Hour Urine					
Total Volume	1500				QCRL
Uroporphyrin I	6.5		4.1-22.4	mcg/24h	QCRL
Uroporphyrin III	3.5		0.7-7.4	mcg/24h	QCRL
Heptacarboxyporphyrin	3.3		< OR = 3.3	mcg/24h	QCRL
Hexacarboxyporphrin	10.0		< OR = 10.0	mcg/24h	QCRL
Pentacarboxyporphyrin	4.6		< OR = 4.6	mcg/24h	QCRL
Coproporphyrin I	10.5		7.1-48.7	mcg/24h	QCRL
Coproporphyrin III	120.5		11.0-148.5	mcg/24h	QCRL
Total Porphyrins	205.3		35.0-210.7	mcg/24h	QCRL
Interpretation	SEE NOTE				QCRL

THESE RESULTS ARE SUGGESTIVE OF THE BIOCHEMICAL DIAGNOSIS OF A FORM OF PORPHYRIA CUTANEA TARDA (PCT), EITHER INHERITED OR SECONDARY TO LIVER DISEASE. IF THE FAMILY HISTORY SUGGESTS AN INHERITED FORM OF PCT, PLEASE CONSIDER UROPORPHYRINOGEN DECARBOXYLASE (UROD) ENZYME ANALYSIS AND/OR MOLECULAR ANALYSIS FOR CONFIRMATION.

Interpretation reviewed by: Denise Salazar, Ph.D., DABMG

IF THE ORDERING/TREATING PHYSICIAN HAS ANY QUESTIONS REGARDING THESE RESULTS, PLEASE CONTACT THE QUEST DIAGNOSTICS BIOCHEMICAL GENETICS LABORATORY AT 1-800-642-4657 ext 4817 or ext 4423 AND ASK TO SPEAK WITH THE LABORATORY DIRECTOR ON CALL. FOR GENERAL QUESTIONS ABOUT QUEST DIAGNOSTICS GENETIC TESTING, PLEASE CALL THE GENE INFO LINE AT 1-866-GENE-INFO.

For additional information, please refer to
http://education.QuestDiagnostics.com/faq/FAQ223
(This link is being provided for informational/educational purposes only.)

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics. It has not been cleared or approved by FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.
Test Performed at:
Quest Diagnostics Nichols Institute
33608 Ortega Highway
San Juan Capistrano, CA 92675-2042 I Maramica MD, PhD

Reported Date: 03/07/2025 15:28 UPO24

Performing Site:
QCRL: QUEST DIAGNOSTICS REFERENCE LAB CAPISTRANO 33608 Ortega Highway San Juan Capistrano CA 92675

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

H107000012
WX0000003826
Printed D&T: 03/07/25 15:28

Ordered By: CLIENT CLIENT
WX00000000002806

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

Inactivate Test With Replacement			
Effective Date	4/29/2025		
Inactivated Test			
Name	Zinc - Urine		
Code	UZINC		
Legacy Code	UZINC		
Interface Order Code	3511260		
Replacement Test			
Name	Zinc, 24-Hour Urine		
Code	UZN24		
CPT Code(s)	84630		
Notes	New York DOH Approval Status: Yes		
Specimen Requirements			
Specimen Required	*Collect:* 24 hour urine in acid washed container *Specimen Preparation:* Mix well and send 7.0 mL of unpreserved urine in an acid washed screw capped plastic container. Record total volume on container label. Call lab for collection container. *Minimum Volume:* 3.0 mL *Transport Temperature:* Refrigerated		
Alternate Specimen	Urine collected in metal free container.		
Rejection Criteria	Hemolysis, Fecal contamination, Random urine, Urine collected with preservative		
Stability	Room temperature: 5 days Refrigerated: 14 days Frozen: 30 days		
Performing Information			
Methodology	Inductively Coupled Plasma/Mass Spectrometry (ICP/MS)		
Reference Range	100-1200 mcg/24 h		
Performed Days	Monday - Saturday		
Turnaround Time	3 - 5 days		
Performing Laboratory	Quest		
Interface Information			
Legacy Code	UZN24		
Interface Order Code	3401009		
Result Code	**Name**	**LOINC Code**	**AOE/Prompt**
3401011	Zinc, 24 Hour Urine	5765-3	No
3401012	Total Volume	3167-4	Yes

Warde Medical Laboratory

LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 36 Y

Referral Testing

Collected: 03/07/2025 14:40 Received: 03/07/2025 14:40

Test Name	Result	Flag	Ref-Ranges	Units	Site
Zinc, 24-Hour Urine					
Zinc, 24 Hour Urine	800		100-1200	mcg/24hr	QHRL

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute Chantilly, VA. It has not been cleared or approved by the U.S. Food and Drug Administration. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

Total Volume	1600			mL/24h	QHRL

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute Chantilly, VA. It has not been cleared or approved by the U.S. Food and Drug Administration. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

Reported Date: 03/07/2025 14:40 UZN24

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

H107000001
WX0000003826
Printed D&T: 03/07/25 14:41

Ordered By: CLIENT CLIENT
WX00000000002806

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1

Warde Medical Laboratory

TEST DIRECTORY UPDATE

APRIL 2025

Inactivate Test Without Replacement	
Effective Date	4/1/2025
Name	Adenovirus Antibody, Serum
Code	ADVAB
Legacy Code	ADVAB
Interface Code	3400012
Notes	Test discontinued.

Inactivate Test Without Replacement	
Effective Date	4/21/2025
Name	Arginine Vasopressin Hormone
Code	AVAH
Legacy Code	AVAR
Interface Code	3685300
Notes	Test discontinued.

Inactivate Test Without Replacement	
Effective Date	4/1/2025
Name	Influenza Type A and B Antibodies, Serum
Code	INABS
Legacy Code	INABS
Interface Code	3400747
Notes	Test discontinued.

Inactivate Test Without Replacement	
Effective Date	4/1/2025
Name	Meningoencephalitis Comprehensive Panel, CSF
Code	MCPPC
Legacy Code	MCPPC
Interface Code	3400450
Notes	Test discontinued.