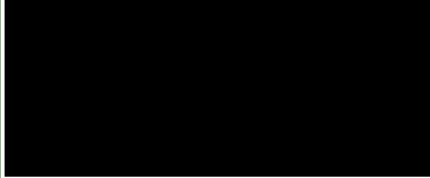




Patient Information	Specimen Information	Client Information
WU, RAY DOB: 10/07/1984 AGE: 39 Gender: M Fasting: Y Phone: XXXXXXXXXX Patient ID: 721	Specimen: SZ373690M Requisition: 0000380 Collected: 12/14/2023 Received: 12/14/2023 / 13:20 PST Reported: 12/21/2023 / 05:45 PST	

COMMENTS: FASTING: YES

Test Name	In Range	Out Of Range	Reference Range	Lab
HEPATIC FUNCTION PANEL				UL
PROTEIN, TOTAL	6.7		6.1-8.1 g/dL	
ALBUMIN	4.8		3.6-5.1 g/dL	
GLOBULIN	1.9		1.9-3.7 g/dL (calc)	
ALBUMIN/GLOBULIN RATIO	2.5		1.0-2.5 (calc)	
BILIRUBIN, TOTAL	0.6		0.2-1.2 mg/dL	
BILIRUBIN, DIRECT	0.2		< OR = 0.2 mg/dL	
BILIRUBIN, INDIRECT	0.4		0.2-1.2 mg/dL (calc)	
ALKALINE PHOSPHATASE	47		36-130 U/L	
AST	32		10-40 U/L	
ALT	20		9-46 U/L	
INSULIN, INTACT, LC/MS/MS	<3		< OR = 16 uIU/mL	EZ

Insulin concentration can be converted to pmol/L by applying the conversion factor: 1 uIU/mL = 5.97 pmol/L

For additional information, please refer to <http://education.QuestDiagnostics.com/faq/FAQ170>
(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.



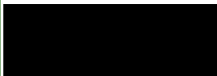
Patient Information	Specimen Information	Client Information
WU, RAY DOB: 10/07/1984 AGE: 39 Gender: M Fasting: Y Patient ID: 721	Specimen: SZ373690M Collected: 12/14/2023 Received: 12/14/2023 / 13:20 PST Reported: 12/21/2023 / 05:45 PST	

Cardio IQ®

Test Name	Current		Risk/Reference Interval			Units	Historical Result & Risk
	Result & Risk		Optimal	Moderate	High		
	Optimal	Non-Optimal					
LIPID PANEL							
CHOLESTEROL, TOTAL	151		<200	N/A	>=200	mg/dL	
HDL CHOLESTEROL	81		>=40	N/A	<40	mg/dL	
TRIGLYCERIDES	55		<150	150-199	>=200	mg/dL	
LIPOPROTEIN FRACTIONATION, ION MOBILITY							
LDL PARTICLE NUMBER	1025		<1138	1138-1409	>1409	nmol/L	
LDL SMALL		164	<142	142-219	>219	nmol/L	
LDL MEDIUM	182		<215	215-301	>301	nmol/L	
HDL LARGE		6646	>6729	6729-5353	<5353	nmol/L	
LDL PATTERN	A		A	N/A	B	Pattern	
LDL PEAK SIZE	227.3		>222.9	222.9-217.4	<217.4	Angstrom	
APOLIPOPROTEINS							
APOLIPOPROTEIN B	55		<90	90-119	>=120	mg/dL	
LIPOPROTEIN (a)	39		<75	75-125	>125	nmol/L	
INFLAMMATION							
HS CRP	<0.3		<1.0	1.0-3.0	>3.0	mg/L	
METABOLIC MARKERS							
HEMOGLOBIN A1c	5.0		<=5.6	5.7-6.4	>=6.5	%	
GLUCOSE	93		65-99	100-125	>=126	mg/dL	

For details on reference ranges please refer to the reference range/comment section of the report.



Patient Information	Specimen Information	Client Information
WU, RAY DOB: 10/07/1984 AGE: 39 Gender: M Fasting: Y Patient ID: 721	Specimen: SZ373690M Collected: 12/14/2023 Received: 12/14/2023 / 13:20 PST Reported: 12/21/2023 / 05:45 PST	

Reference Range/Comments

Analyte Name	In Range	Out Range	Reference Range	Lab
HDL LARGE		6646	>6729 nmol/L	Z4M
Relative Risk: Optimal >6729; Moderate 6729-5353; High <5353. Male Reference Range: 4334 to 10815 nmol/L; Female Reference Range: 5038 to 17886 nmol/L.				
LDL SMALL		164	<142 nmol/L	Z4M
Relative Risk: Optimal <142; Moderate 142-219; High >219. Male Reference Range: 123 to 441 nmol/L; Female Reference Range: 115 to 386 nmol/L.				
APOLIPOPROTEIN B	55		<90 mg/dL	Z4M
Risk: Optimal <90 mg/dL; Moderate 90-119 mg/dL; High >= 120 mg/dL; Cardiovascular event risk category cut points (optimal, moderate, high) are based on National Lipid Association recommendations- Jacobson TA et al. J of Clin Lipid. 2015; 9: 129-169 and Jellinger PS et al. Endocr Pract. 2017;23(Suppl 2):1-87.				
CHOLESTEROL, TOTAL	151		<200 mg/dL	Z4M
GLUCOSE	93		65-99 mg/dL	Z4M
Fasting reference interval				
HDL CHOLESTEROL	81		>39 mg/dL	Z4M
HEMOGLOBIN A1c	5.0		<5.7 %	Z4M
For the purpose of screening for the presence of diabetes: <5.7% is consistent with the absence of diabetes; 5.7-6.4% is consistent with increased risk for diabetes (prediabetes); >= 6.5% is consistent with diabetes. This assay result is consistent with a decreased risk of diabetes. Currently, no consensus exists regarding use of hemoglobin A1c for diagnosis of diabetes in children. According to American Diabetes Association (ADA) guidelines, hemoglobin A1c <7.0% represents optimal control in non-pregnant diabetic patients. Different metrics may apply to specific patient populations. Standards of Medical Care in Diabetes (ADA).				
HS CRP	<0.3		<1.0 mg/L	Z4M
The AHA/CDC Guidelines recommend hs-CRP ranges for identifying Relative Cardiovascular Risk in patients ages >17 years: <1.0 mg/L Lower Relative Cardiovascular Risk; 1.0-3.0 mg/L Average Relative Cardiovascular Risk; 3.1-10.0 mg/L Higher Relative Cardiovascular Risk. For patients with higher cardiovascular risk, consider retesting in 1-2 weeks to exclude a benign transient elevation secondary to infection or inflammation from the baseline CRP value. Persistent elevations of >10.0 mg/L upon retesting may be associated with infection and inflammation. The AHA/CDC recommendations are based on Pearson TA et al. Circulation. 2003;107:499-511.				
LDL MEDIUM	182		<215 nmol/L	Z4M
Relative Risk: Optimal <215; Moderate 215-301; High >301. Male Reference Range: 167 to 485 nmol/L; Female Reference Range: 121 to 397 nmol/L.				
LDL PARTICLE NUMBER	1025		<1138 nmol/L	Z4M
Relative Risk: Optimal <1138; Moderate 1138-1409; High >1409. Male and Female Reference Range: 1016 to 2185 nmol/L.				
LDL PATTERN	A		A Pattern	Z4M
Relative Risk: Optimal Pattern A; High Pattern B. Reference Range: Pattern A.				
LDL PEAK SIZE	227.3		>222.9 Angstrom	Z4M
Relative Risk: Optimal >222.9; Moderate 222.9-217.4; High <217.4. Male and Female Reference Range: 216 to 234.3 Angstrom. Adult cardiovascular event risk category cut points (optimal, moderate, high) are based on an adult U.S. reference population plus two large cohort study populations. Association between lipoprotein subfractions and cardiovascular events is based on Musunuru et al. ATVB.2009;29:1975. For additional information, please refer to http://education.QuestDiagnostics.com/faq/FAQ134 (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 Cardiometabolic Center of Excellence at Cleveland HeartLab. 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.				
LIPOPROTEIN (a)	39		<75 nmol/L	Z4M
Risk: Optimal <75 nmol/L; Moderate 75-125 nmol/L; High >125 nmol/L. Cardiovascular event risk category cut points (optimal, moderate, high) are based on Tsimika S. JACC 2017;69:692-711.				
TRIGLYCERIDES	55		<150 mg/dL	Z4M