

Patient Information	Specimen Information	Client Information

Reference Range/Comments				
Analyte Name	In Range	Out Range	Reference Range	Lab
APOLIPOPROTEIN B		162	<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(1):1-87.				
CHOL/HDL C RATIO		5.7	<3.6 calc	Z4M
CHOLESTEROL, TOTAL		327	<200 mg/dL	Z4M
HDL LARGE		6150	>6729 nmol/L	Z4M
Relative Risk: Optimal >6729; Moderate 6729-5353; High <5353. Reference Range: >6729 nmol/L.				
LDL MEDIUM		637	<215 nmol/L	Z4M
Relative Risk: Optimal <215; Moderate 215-301; High >301. Reference Range: <215 nmol/L.				
LDL PARTICLE NUMBER		2255	<1138 nmol/L	Z4M
Relative Risk: Optimal <1138; Moderate 1138-1409; High >1409. Reference Range: <1138 nmol/L.				
LDL PEAK SIZE		220.5	>222.9 Angstrom	Z4M
Relative Risk: Optimal >222.9; Moderate 222.9-217.4; High <217.4. Reference Range: >222.9 Angstrom. 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 is performed by an immuno-mobility method. This test was developed and its performance characteristics determined by The Cleveland HeartLab, Inc. It has not been cleared or approved by the U.S. FDA. The Cleveland HeartLab is regulated under Clinical Laboratory Improvement Amendments (CLIA) as qualified to perform high-complexity testing. This test is used for clinical purposes. It should not be regarded as investigational or for research.				
LDL SMALL		293	<142 nmol/L	Z4M
Relative Risk: Optimal <142; Moderate 142-219; High >219. Reference Range: <142 nmol/L.				
LDL-CHOLESTEROL		256	<100 mg/dL (calc)	Z4M
Desirable range <100 mg/dL for primary prevention, <100 mg/dL for patients with CHD or diabetic patients with >= 2 CHD risk factors. LDL-C levels >=190 mg/dL may indicate familial hypercholesterolemia (FH). Clinical assessment and measurement of blood lipid levels should be considered for all first degree relatives of patients with an FH diagnosis. For questions about testing for familial hypercholesterolemia, please call Quest Genomics Client Services at 1.866.GENE.INFO. Jacobson T, et al. National Lipid Association Recommendations for Primary Prevention of Dyslipidemia: Part 1 Journal of Clinical Lipidology 2015;9(2),129-169. 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)				
NON HDL CHOLESTEROL		271	<130 mg/dL (calc)	Z4M
Non-HDL level >=220 is very high and may indicate genetic familial hypercholesterolemia (FH). Clinical assessment and measurement of blood lipid levels should be considered for all first degree relatives of patients with an FH diagnosis.				
HDL CHOLESTEROL	58		>39 mg/dL	Z4M
LDL PATTERN	A		A Pattern	Z4M
Relative Risk: Optimal Pattern A; High Pattern B. Reference Range: Pattern A.				
LIPOPROTEIN (a)	10		<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	63		<150 mg/dL	Z4M

PERFORMING SITE:

Z4M CLEVELAND HEARTLAB INC, 6701 CARNEGIE AVENUE SUITE 500, CLEVELAND, OH 44103-4623 Laboratory Director: BILL G RICHENDOLLAR,MD, CLIA: 36D1032987