LabCorp
Laboratory Corporation of America

LabCorp Seattle
550 17th Avenue Ste 300
Seattle, WA 98122-5789
Phone: **206-861-7000**

Specimen Number	Patient ID	Control Number	Account Number	Account Phone Number	Route
160-535-0175-0		62014243941	09149190	866-999-4041	09

Patient Last Name	Patient First Name	Patient Middle Name	Patient SS#	Patient Phone	Total Volume	Age (Y/M/D)	Date of Birth	Sex	Fasting
GREENFIELD	**BENJAMIN**			208-883-7705		34/05/19	12/20/81	M	Yes

Account Address
PROFESSIONAL CO-OP SERVICE INC

850 West Dania Beach Blvd
Dania Beach FL 33004

Patient Address
8515 N ARGONNE RD
SPOKANE WA 99217

Additional Information

Date and Time Collected	Date Entered	Date and Time Reported	Physician Name	NPI	Physician ID
06/08/16 09:14	06/08/16	06/12/16 06:35ET	HURST , B	1366580102	GADC1207

Tests Ordered
NMR LipoProf wSubCls+Graph; Lipid Panel With LDL/HDL Ratio; Testosterone, Total, LC/MS; Cortisol; Luteinizing Hormone(LH), S; FSH, Serum; Aldosterone LCMS, Serum; ACTH, Plasma; Prolactin; C-Peptide, Serum; Testosterone, Free, Direct; Venipuncture; Cardiovascular Report

TESTS	RESULT	FLAG	UNITS	REFERENCE INTERVAL	LAB
NMR LipoProf wSubCls+Graph					
LDL Particle Number					01
LDL-P	909		nmol/L	<1000	01
			Low	< 1000	
			Moderate	1000 - 1299	
			Borderline-High	1300 - 1599	
			High	1600 - 2000	
			Very High	> 2000	
Lipids					01
LDL-C	**109**	**High**	mg/dL	0 - 99	
			Optimal	< 100	
			Above optimal	100 - 129	
			Borderline	130 - 159	
			High	160 - 189	
			Very high	> 189	
Comment:					01
LDL-C is inaccurate if patient is non-fasting.					
HDL-C	105		mg/dL	>39	01
Triglycerides	46		mg/dL	0 - 149	01
Cholesterol, Total	**223**	**High**	mg/dL	100 - 199	01
LDL and HDL Particles					01
HDL-P (Total)	41.5		umol/L	>=30.5	01
Small LDL-P	<90		nmol/L	<=527	01
LDL Size	21.4		nm	>20.5	01

** INTERPRETATIVE INFORMATION**
PARTICLE CONCENTRATION AND SIZE
<--Lower CVD Risk Higher CVD Risk-->

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

TESTS	RESULT	FLAG	UNITS	REFERENCE INTERVAL	LAB

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: 01

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

These assays were developed and their performance characteristics determined by LipoScience. These assays have not been cleared by the US Food and Drug Administration. The clinical utility of these laboratory values have not been fully established.

Insulin Resistance/Diab. Risk				01
Large VLDL-P	0.8	nmol/L	<=2.7	01
Small LDL-P	<90	nmol/L	<=527	01
Large HDL-P	16.9	umol/L	>=4.8	01
VLDL Size	41.4	nm	<=46.6	01
LDL Size	21.4	nm	>=20.8	01
HDL Size	10.4	nm	>=9.2	01
Insulin Resistance Score				01
LP-IR Score	<25		<=45	01

INSULIN RESISTANCE / DIABETES RISK MARKERS

<--Insulin Sensitive Insulin Resistant-->

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

LabCorp
Laboratory Corporation of America

LabCorp Seattle
550 17th Avenue Ste 300
Seattle, WA 98122-5789

Phone: **206-861-7000**

Patient Name					Specimen Number		
GREENFIELD, BENJAMIN					**160-535-0175-0**		
Account Number	Patient ID	Control Number	Date and Time Collected	Date Reported	Sex	Age(Y/M/D)	Date of Birth
09149190		62014243941	06/08/16 09:14	06/12/16	M	34/05/19	12/20/81

TESTS	RESULT	FLAG	UNITS	REFERENCE INTERVAL	LAB
	<27 27 45 63 >63				
Comment:					01
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. Neither the LP-IR score nor the subclasses listed above have been cleared by the US Food and Drug Administration.					
NMR PDF Image	.				01
Lipid Panel With LDL/HDL Ratio					
Cholesterol, Total	**210**	**High**	mg/dL	100 - 199	02
Triglycerides	38		mg/dL	0 - 149	02
HDL Cholesterol	107		mg/dL	>39	02
Comment					02
According to ATP-III Guidelines, HDL-C >59 mg/dL is considered a negative risk factor for CHD.					
VLDL Cholesterol Cal	8		mg/dL	5 - 40	
LDL Cholesterol Calc	95		mg/dL	0 - 99	
LDL/HDL Ratio	0.9		ratio units	0.0 - 3.6	
Please Note:					02
LDL/HDL Ratio: Men / Women					
1/2 Avg.Risk				1.0 / 1.5	
Avg.Risk				3.6 / 3.2	
2X Avg.Risk				6.2 / 5.0	
3X Avg.Risk				8.0 / 6.1	
Testosterone, Total, LC/MS					
Testosterone, Total, LC/MS	496		ng/dL		03
Reference Range: Adult Males >18 years 348 - 1197					
Comment:					
Adult male reference interval is based on a population of lean males up to 40 years old.					
Cortisol	23.3		ug/dL		02
Cortisol AM				6.2 - 19.4	
Cortisol PM				2.3 - 11.9	
Luteinizing Hormone(LH), S					
LH	1.8		mIU/mL	1.7 - 8.6	02

LabCorp
Laboratory Corporation of America

LabCorp Seattle
550 17th Avenue Ste 300
Seattle, WA 98122−5789

Phone: **206−861−7000**

Patient Name					Specimen Number		
GREENFIELD, BENJAMIN					**160−535−0175−0**		
Account Number	Patient ID	Control Number	Date and Time Collected	Date Reported	Sex	Age(Y/M/D)	Date of Birth
09149190		62014243941	06/08/16 09:14	06/12/16	M	34/05/19	12/20/81

TESTS	RESULT	FLAG	UNITS	REFERENCE INTERVAL	LAB
FSH, Serum					
FSH	4.9		mIU/mL	1.5 − 12.4	02
Aldosterone LCMS, Serum					
Aldosterone	4.4		ng/dL	0.0 − 30.0	01
ACTH, Plasma	47.9		pg/mL	7.2 − 63.3	02
ACTH reference interval for samples collected between 7 and 10 AM.					
Prolactin	6.6		ng/mL	4.0 − 15.2	02
C−Peptide, Serum	1.5		ng/mL	1.1 − 4.4	02
C−Peptide reference interval is for fasting patients.					
Testosterone, Free, Direct					
Free Testosterone(Direct)	**5.6**	**Low**	pg/mL	8.7 − 25.1	01
Cardiovascular Report					
Interpretation	Note				04
Supplement report is available.					
PDF Image	.				04

01	BN	LabCorp Burlington 1447 York Court, Burlington, NC 27215−3361	Dir: William F Hancock, MD
02	SE	LabCorp Seattle 550 17th Avenue Ste 300, Seattle, WA 98122−5789	Dir: Daniel Toweill, MD
03	ES	Esoterix Endocrinology 4301 Lost Hills Road, Calabasas Hills, CA 91301−5358	Dir: Samuel Pepkowitz, MD
04	LITIL	Litholink Corporation 2250 West Campbell Park Drive, Chicago, IL 60612−3502	Dir: Mitchell Laks, PhD

For inquiries, the physician may contact **Branch: 800−762−4344 Lab: 206−861−7000**

LabCorp
Laboratory Corporation of America

1447 York Court
Burlington, NC 27215
800-788-9223
Medical Director: William F Hancock, MD

Specimen Number	Patient ID	Account Number	Account Phone	Account Fax
160-535-0175-0		09149190	(866) 999-4041	(866) 999-4041

Patient Last Name	Patient First Name	Account Address
GREENFIELD	BENJAMIN	**PROFESSIONAL CO-OP SERVICE INC** **850 West Dania Beach Blvd** **Dania Beach, FL 33004**

Age	Date of Birth	Sex	Fasting
34	12/20/1981	M	YES

Control Number	NPI
62014243941	1366580102

Date Collected	Date Entered	Date and Time Reported	Physician ID & Name	Page Number
06/08/2016	06/08/2016	06/10/2016 11:40 AM ET	GADC1207 - HURST, B	1 of 2

NMR LipoProfile ® test

		Reference Range[1]				
		Percentile[1]	20th	50th	80th	95th
	nmol/L	Low	Moderate	Borderline High	High	Very High
LDL-P (LDL Particle Number)	**909**	**< 1000**	**1000 - 1299**	**1300 - 1599**	**1600 - 2000**	**> 2000**

1. Reference population (5,362 men and women) not on lipid medication enrolled in the Multi-Ethnic Study of Atherosclerosis (MESA). Mora, et al. Atherosclerosis 2007.

Lipids

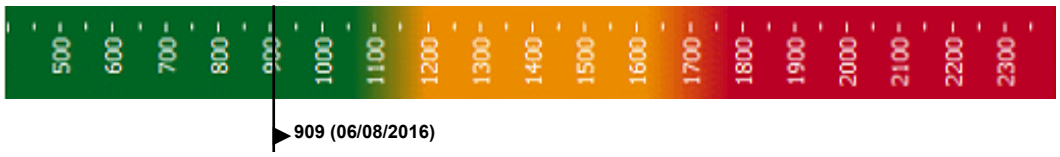
		Optimal	Near or Above Optimal	Borderline High	High	Very High
	mg/dL					
LDL-C (calculated)	**109**	**< 100**	**100 - 129**	**130 - 159**	**160 - 189**	**≥ 190**

109

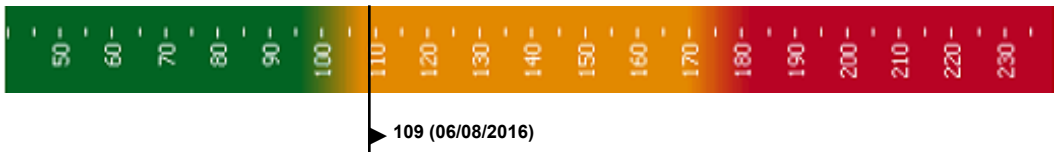
HDL-C	Triglycerides	Total Cholesterol
mg/dL	mg/dL	mg/dL
105	**46**	**223**
Desirable ≥ 40	Desirable < 150	Desirable < 200

Historical Reporting

LDL-P



LDL-C



Issued or Pending Patents

The NMR LipoProfile ® test may be covered by one or more issued or pending patents, including U.S. Patent Nos. 6,518,069; 6,576,471; 6,653,140; and 7,243,030

CLIA Number
34D0655059

LabCorp
Laboratory Corporation of America

1447 York Court
Burlington, NC 27215
800-788-9223
Medical Director: William F Hancock, MD

Specimen Number	Patient ID	Account Number	Account Phone	Account Fax
160-535-0175-0		09149190	(866) 999-4041	(866) 999-4041

Patient Last Name	Patient First Name	Account Address
GREENFIELD	BENJAMIN	PROFESSIONAL CO-OP SERVICE INC 850 West Dania Beach Blvd Dania Beach, FL 33004

Age	Date of Birth	Sex	Fasting
34	12/20/1981	M	YES

Control Number	NPI
62014243941	1366580102

Date Collected	Date Entered	Date and Time Reported	Physician ID & Name	Page Number
06/08/2016	06/08/2016	06/10/2016 11:40 AM ET	GADC1207 - HURST, B	2 of 2

PARTICLE CONCENTRATION AND SIZE

LDL and HDL Particles *

Lower CVD Risk ← Higher CVD Risk

Percentile in Reference Population①

		high	75th	50th	25th	low
HDL-P (total)	µmol/L 41.5		34.9	30.5	26.7	

		low	25th	50th	75th	high
SMALL LDL-P	nmol/L <90		117	527	839	

LDL SIZE	nm 21.4	23.0 Large (Pattern A) 20.6		20.5 Small (Pattern B) 19.0	

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

* These assays were developed and their performance characteristics determined by LipoScience. These assays have not been cleared by the US Food and Drug Administration. The clinical utility of these laboratory values has not been fully established.

LipoProtein Markers Associated with Insulin Resistance & Diabetes Risk②③

Insulin Sensitive ← Insulin Resistant

Percentile in Reference Population①

		low	25th	50th	75th	high
LARGE VLDL-P	nmol/L 0.8		0.9	2.7	6.9	

		low	25th	50th	75th	high
SMALL LDL-P	nmol/L <90		117	527	839	

		high	75th	50th	25th	low
LARGE HDL-P	µmol/L 16.9		7.3	4.8	3.1	

		small	25th	50th	75th	large
VLDL SIZE	nm 41.4		42.4	46.6	52.5	

		large	75th	50th	25th	small
LDL SIZE	nm 21.4		21.2	20.8	20.4	

		large	75th	50th	25th	small
HDL SIZE	nm 10.4		9.6	9.2	8.9	

Insulin Resistance Score

		insulin sensitive	25th	50th	75th	insulin resistant
LP-IR SCORE**	0-100 <25		27	45	63	

** 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. Neither the LP-IR score nor the subclasses listed above have been cleared by the US Food and Drug Administration.

① LipoScience reference population comprises 4,588 men and women without known CVD or diabetes and not on lipid medication.

② Shalaurova I et al., Metab Syndr Relat Disord 2014; 12:422-9.

③ Mackey RH et al., Diab Care 2015; 38:628-36.

Accessions: 16053501750

DISCLAIMER: *These assessments and treatment suggestions are provided as a convenience in support of the physician-patient relationship and are not intended to replace the physician's clinical judgment. They are derived from the national guidelines in addition to other evidence and expert opinion. The clinician should consider this information within the context of clinical opinion and the individual patient.*
SEE GUIDANCE FOR CARDIOVASCULAR REPORT: National Heart, Lung, and Blood Institute's Third Report of the NCEP Expert Panel on Detection, Evaluation and Treatment of High Blood Cholesterol in Adults (ATP III) (2002. NIH publication 02-5215); Brunzell et al. Diabetes Care 2008; 31(4):811-82; Contois et al. Clin Chem 2009; 55(3):407-419; Stone NJ et al. 2013 ACC/AHA guideline on the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. Circulation 2014;129(suppl 2):S1–S45.

Note: *Please refer to your LabCorp Report for all results as well as any test-specific and specimen-specific comments.*

Cardiovascular Report

Patient Assessment

Current available clinical information suggests the patient's risk is at least LOW. If the patient has two or more major risk factors, the risk category is intermediate. If the patient has CHD or a CHD risk equivalent, the risk category is high. If patient does not have CHD or a CHD risk equivalent, consider use of the Pooled Cohort Equations to estimate 10-year CVD risk, as individuals with greater than 7.5% risk may warrant more intensive therapy. The calculator can be found at: http://tools.cardiosource.org/ASCVD-Risk-Estimator/

Insulin resistance, obesity, excessive alcohol use, smoking, thyroid disease, nephrotic syndrome, liver disease, and certain medications are all causes of secondary dyslipidemia. Consider evaluation if clinically indicated.

Therapeutic lifestyle changes are always valuable to achieve optimal blood lipid status (diet, exercise, weight management).

Lipid Management

Select one patient risk category based upon medical history and clinical judgment. Additional risk factors such as personal or family history of premature CHD, smoking, and hypertension modify a patient's goals of therapy. In CVD prevention, the intensity of therapy should be adjusted to the level of patient risk. MODERATE intensity statin therapy generally results in an average LDL-C reduction of 30% to less than 50% from the untreated baseline. Examples include (daily doses): atorvastatin 10-20 mg, rosuvastatin 5-10 mg, simvastatin 20-40 mg, pravastatin 40-80 mg, lovastatin 40 mg. HIGH intensity statin therapy generally results in an average LDL-C reduction of 50% or more from the untreated baseline. Examples include (daily doses): atorvastatin 40-80 mg and rosuvastatin 20 mg.

▽ = PATIENT'S RESULT

ANALYTE / RESULT	**Patient Risk Category** (select one)		
	LOW	**INTERMEDIATE**	**HIGH**
LDL-C **95 mg/dL**	▽ 160	▽ 100 130	▽ 70 100
non-HDL **103 mg/dL**	▽ 190	▽ 130 160	▽ 100 130
LDL-P **909 nmol/L**	▽ 1600	▽ 1000 1300	▽ 800 1000
Lipid Assessment	LDL-C is optimal, 95 mg/dL. Non-HDL Cholesterol is optimal, 103 mg/dL. LDL-P is acceptable, 909 nmol/L.	LDL-C is optimal, 95 mg/dL. Non-HDL Cholesterol is optimal, 103 mg/dL. LDL-P is optimal, 909 nmol/L.	LDL-C is normal, 95 mg/dL. Non-HDL Cholesterol is normal, 103 mg/dL. LDL-P is normal, 909 nmol/L.
Treatment Suggestions	Considerations for use of statin therapy include family history of premature atherosclerotic disease, elevated coronary artery calcium score, ankle-brachial index < 0.9, elevated CRP, or elevated lifetime CVD risk.	Factors that may influence statin use include family history of premature atherosclerotic disease, elevated coronary artery calcium score, ankle-brachial index < 0.9, elevated CRP, or elevated lifetime CVD risk. If statin cannot be tolerated or increased, alternatives include use of an intestinal agent (ezetimibe or bile acid sequestrant) or niacin.	If at least a 50% LDL reduction from baseline has not been achieved, begin or increase statin. If statin cannot be tolerated or increased, alternatives include use of an intestinal agent (ezetimibe or bile acid sequestrant) or niacin.