PRECISION HEALTH REPORTS

Understanding your NMR Lab Results (ApoB)

Lipids

- Traditional lipid panel includes LDL-C, HDL-C, triglycerides and total cholesterol.
- High triglycerides are a cardiovascular risk factor.
- When LDL-C and ApoB disagree, cardiovascular risk tracks with ApoB, not LDL-C.

LDL Particle Number (ApoB)

- High Apolipoprotein(B) is a well-established factor of cardiovascular disease.
- LDL can be directly measured by LDL particle number (ApoB or LDL-P) or *estimated* by measuring the cholesterol in LDL (LDL-C).
- The amount of cholesterol inside LDL particles is variable so ApoB and LDL-C often disagree.

Lipoprotein Insulin Resistance (LP-IR) Score

- The LP-IR Score is a weighted combination of six lipoprotein variables that ranges from 0 (most insulin sensitive) to 100 (most insulin resistant).
- LP-IR is the most predictive insulin resistance tool for diabetic risk even after adjustment for other factors or methods and is a better indicator than fasting insulin or HOMA IR.

Hemoglobin A1c

- A simple blood test that measures your average blood sugar levels over the past 3 months.

Lipoprotein(a)

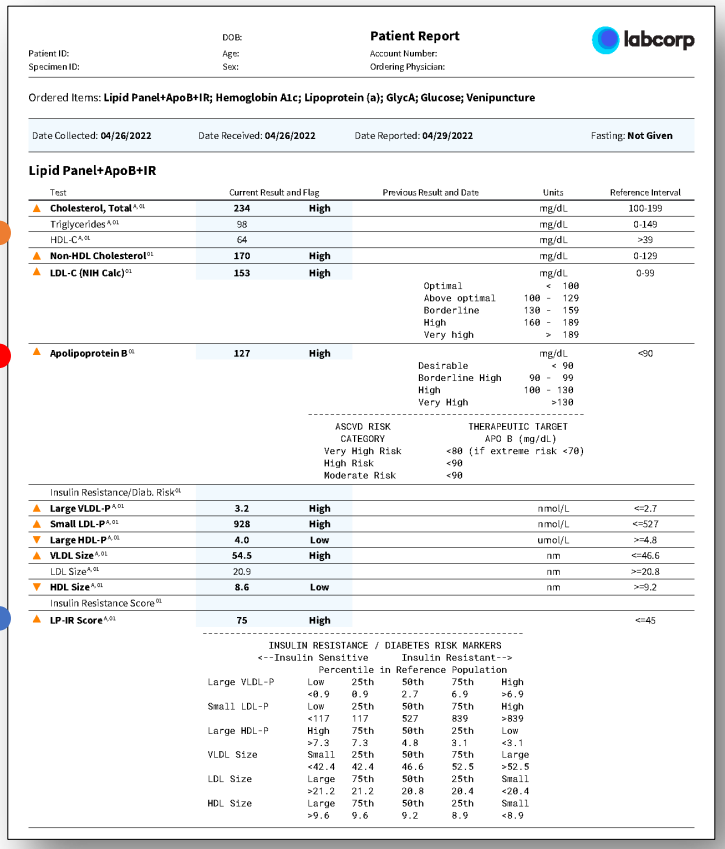
- Lp(a) particles have an extra protein on the outside of the lipoprotein particle that often indicate greater CV risk than other LDL particles.

GlycA

- GlycA is a nuclear magnetic resonance (NMR) signal that reflects the level of inflammatory proteins in the blood. GlycA is more sensitive for systemic inflammation measurement than the commonly measured hsCRP.

Fasting Glucose

- A measurement of blood sugar in a fasting state. You are looking for a level less than 100 mg/dL.



Patient ID:
Specimen ID:
DOB:
Age:
Sex:

Patient Report
Account Number:
Ordering Physician:

labcorp

Ordered Items: **Lipid Panel+ApoB+IR; Hemoglobin A1c; Lipoprotein (a); GlycA; Glucose; Venipuncture**

Date Collected: **04/26/2022** Date Received: **04/26/2022** Date Reported: **04/29/2022** Fasting: **Not Given**

Lipid Panel+ApoB+IR

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
▲ **Cholesterol, Total** A,01	**234**	**High**		mg/dL	100-199
Triglycerides A,01	98			mg/dL	0-149
HDL-C A,01	64			mg/dL	>39
▲ **Non-HDL Cholesterol** 01	**170**	**High**		mg/dL	0-129
▲ **LDL-C (NIH Calc)** 01	**153**	**High**		mg/dL	0-99

Optimal	< 100
Above optimal	100 - 129
Borderline	130 - 159
High	160 - 189
Very high	> 189

▲ **Apolipoprotein B** 01	**127**	**High**		mg/dL	<90

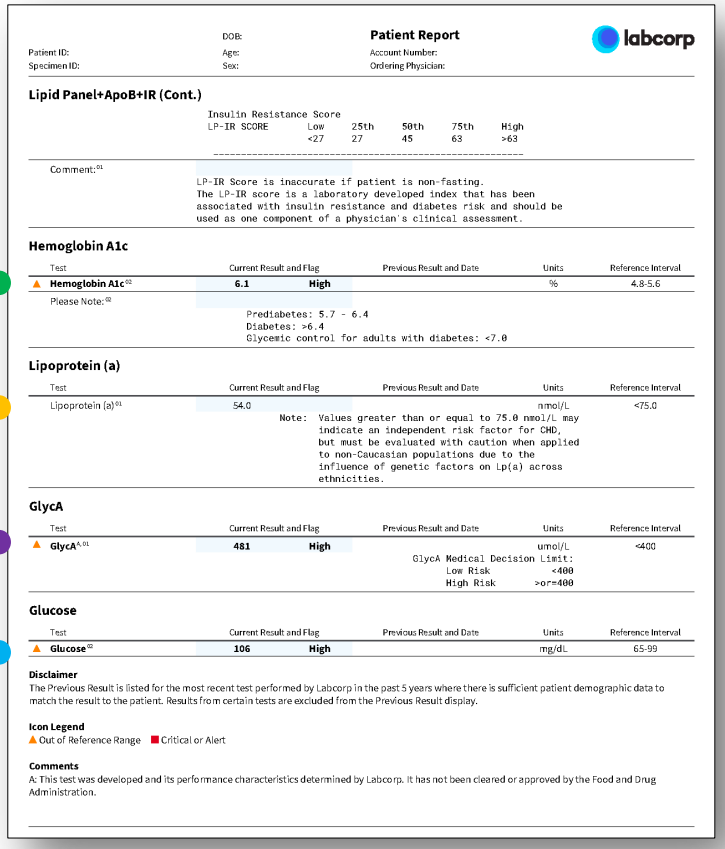
Desirable	< 90
Borderline High	90 - 99
High	100 - 130
Very High	>130

ASCVD RISK CATEGORY	THERAPEUTIC TARGET APO B (mg/dL)
Very High Risk	<80 (if extreme risk <70)
High Risk	<90
Moderate Risk	<90

Insulin Resistance/Diab. Risk 01					
▲ **Large VLDL-P** A,01	**3.2**	**High**		nmol/L	<=2.7
▲ **Small LDL-P** A,01	**928**	**High**		nmol/L	<=527
▼ **Large HDL-P** A,01	**4.0**	**Low**		umol/L	>=4.8
▲ **VLDL Size** A,01	**54.5**	**High**		nm	<=46.6
LDL Size A,01	20.9			nm	>=20.8
▼ **HDL Size** A,01	**8.6**	**Low**		nm	>=9.2
Insulin Resistance Score 01					
▲ **LP-IR Score** A,01	**75**	**High**			<=45

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



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labcorp

Lipid Panel+ApoB+IR (Cont.)

Insulin Resistance Score

LP-IR SCORE	Low	25th	50th	75th	High
	<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.

Hemoglobin A1c

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
▲ **Hemoglobin A1c** 02	**6.1**	**High**		%	4.8-5.6

Please Note: 02

Prediabetes: 5.7 - 6.4
Diabetes: >6.4
Glycemic control for adults with diabetes: <7.0

Lipoprotein (a)

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
Lipoprotein (a) 01	54.0			nmol/L	<75.0

Note: Values greater than or equal to 75.0 nmol/L may indicate an independent risk factor for CHD, but must be evaluated with caution when applied to non-Caucasian populations due to the influence of genetic factors on Lp(a) across ethnicities.

GlycA

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
▲ **GlycA** A,01	**481**	**High**		umol/L	<400

GlycA Medical Decision Limit:
Low Risk <400
High Risk >or=400

Glucose

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval
▲ **Glucose** 02	**106**	**High**		mg/dL	65-99

Disclaimer
The Previous Result is listed for the most recent test performed by Labcorp in the past 5 years where there is sufficient patient demographic data to match the result to the patient. Results from certain tests are excluded from the Previous Result display.

Icon Legend
▲ Out of Reference Range ■ Critical or Alert

Comments
A: This test was developed and its performance characteristics determined by Labcorp. It has not been cleared or approved by the Food and Drug Administration.

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