

Ordered Items: **NMR LipoProfile+Lipids+IR+Gph**

Date Collected:	Date Received:	Date Reported: <b>10/11/2022</b>	Fasting:
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## NMR LipoProfile+Lipids+IR+Gph

Test	Current Result and Flag		Previous Result and Date	Units	Reference Interval																																										
LDL Particle Number <sup>01</sup>																																															
▲ LDL-P <sup>A, 01</sup>	<b>1289</b>	<b>High</b>		nmol/L	<1000																																										
			Low	< 1000																																											
			Moderate	1000 - 1299																																											
			Borderline-High	1300 - 1599																																											
			High	1600 - 2000																																											
			Very High	> 2000																																											
Lipids <sup>01</sup>																																															
▲ LDL-C (NIH Calc) <sup>01</sup>	<b>145</b>	<b>High</b>		mg/dL	0-99																																										
			Optimal	< 100																																											
			Above optimal	100 - 129																																											
			Borderline	130 - 159																																											
			High	160 - 189																																											
			Very high	> 189																																											
HDL-C <sup>A, 01</sup>	98			mg/dL	>39																																										
Triglycerides <sup>A, 01</sup>	63			mg/dL	0-149																																										
▲ Cholesterol, Total <sup>A, 01</sup>	<b>252</b>	<b>High</b>		mg/dL	100-199																																										
LDL and HDL Particles <sup>01</sup>																																															
HDL-P (Total) <sup>A, 01</sup>	42.6			umol/L	>=30.5																																										
Small LDL-P <sup>A, 01</sup>	<90			nmol/L	<=527																																										
LDL Size <sup>A, 01</sup>	21.5			nm	>20.5																																										
<p>*****</p> <p>** INTERPRETATIVE INFORMATION**</p> <p>PARTICLE CONCENTRATION AND SIZE</p> <p>&lt;--Lower CVD Risk    Higher CVD Risk--&gt;</p> <table> <tr> <td>LDL AND HDL PARTICLES</td><td>Percentile in Reference Population</td><td></td><td></td><td></td><td></td></tr> <tr> <td>HDL-P (total)</td><td>High</td><td>75th</td><td>50th</td><td>25th</td><td>Low</td></tr> <tr> <td></td><td>&gt;34.9</td><td>34.9</td><td>30.5</td><td>26.7</td><td>&lt;26.7</td></tr> <tr> <td>Small LDL-P</td><td>Low</td><td>25th</td><td>50th</td><td>75th</td><td>High</td></tr> <tr> <td></td><td>&lt;117</td><td>117</td><td>527</td><td>839</td><td>&gt;839</td></tr> <tr> <td>LDL Size</td><td colspan="2">&lt;-Large (Pattern A)-&gt;</td><td colspan="3">&lt;-Small (Pattern B)-&gt;</td></tr> <tr> <td></td><td>23.0</td><td>20.6</td><td>20.5</td><td>19.0</td><td></td></tr> </table> <p>*****</p>						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	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	
LDL AND HDL PARTICLES	Percentile in Reference Population																																														
HDL-P (total)	High	75th	50th	25th	Low																																										
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LDL Size	<-Large (Pattern A)->		<-Small (Pattern B)->																																												
	23.0	20.6	20.5	19.0																																											
Comment: <sup>01</sup>	<p>Small LDL-P and LDL Size are associated with CVD risk, but not after LDL-P is taken into account.</p>																																														
Insulin Resistance/Diab. Risk <sup>01</sup>																																															
Large VLDL-P <sup>A, 01</sup>	<0.8			nmol/L	<=2.7																																										
Small LDL-P <sup>A, 01</sup>	<90			nmol/L	<=527																																										
Large HDL-P <sup>A, 01</sup>	15.2			umol/L	>=4.8																																										
VLDL Size <sup>A, 01</sup>	43.2			nm	<=46.6																																										
LDL Size <sup>A, 01</sup>	21.5			nm	>=20.8																																										
HDL Size <sup>A, 01</sup>	10.2			nm	>=9.2																																										

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Insulin Resistance Score <sup>01</sup>

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Walk-In Lab

## NMR LipoProfile+Lipids+IR+Gph (Cont.)

LP-IR Score <sup>A, 01</sup>

<25

<=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
Insulin Resistance Score					
LP-IR SCORE	Low	25th	50th	75th	High
	<27	27	45	63	>63

Comment: <sup>01</sup>

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.

PDF <sup>01</sup>

❖ **NMR LipoProfile® test**

**Reference Interval<sup>1</sup>**

		Percentile <sup>1</sup>	20th	50th	80th	95th
	nmol/L	Low	Moderate	Borderline High	High	Very High
<b>LDL-P</b> (LDL Particle Number)	<b>1289</b>	< 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**

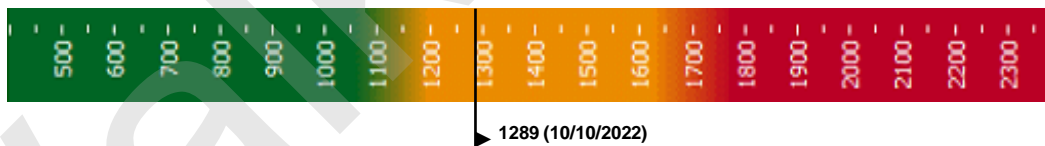
	mg/dL	Optimal	Near or Above Optimal	Borderline High	High	Very High
<b>LDL-C</b> (calculated)	<b>145</b>	< 100	100 - 129	130 - 159	160 - 189	≥ 190

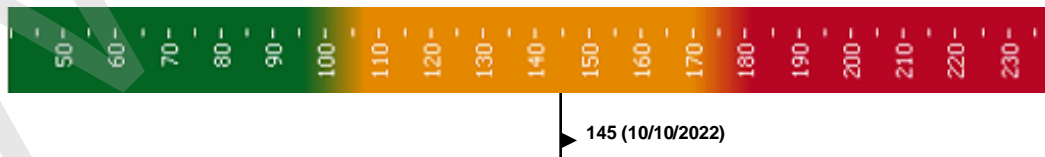
<b>HDL-C</b>	<b>98</b>	<b>Triglycerides</b>	<b>63</b>	<b>Total Cholesterol</b>	<b>253</b>
Desirable ≥ 40		Desirable < 150		Desirable < 200	

**Historical Reporting**

**LDL-P**



**LDL-C**



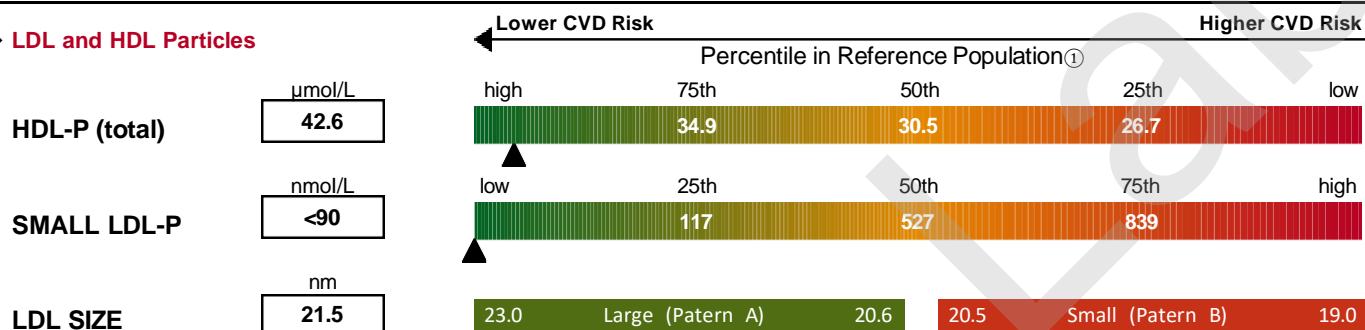
❖ This test was developed and its performance characteristics determined by LabCorp. It has not been cleared or approved by the US Food and Drug Administration.

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

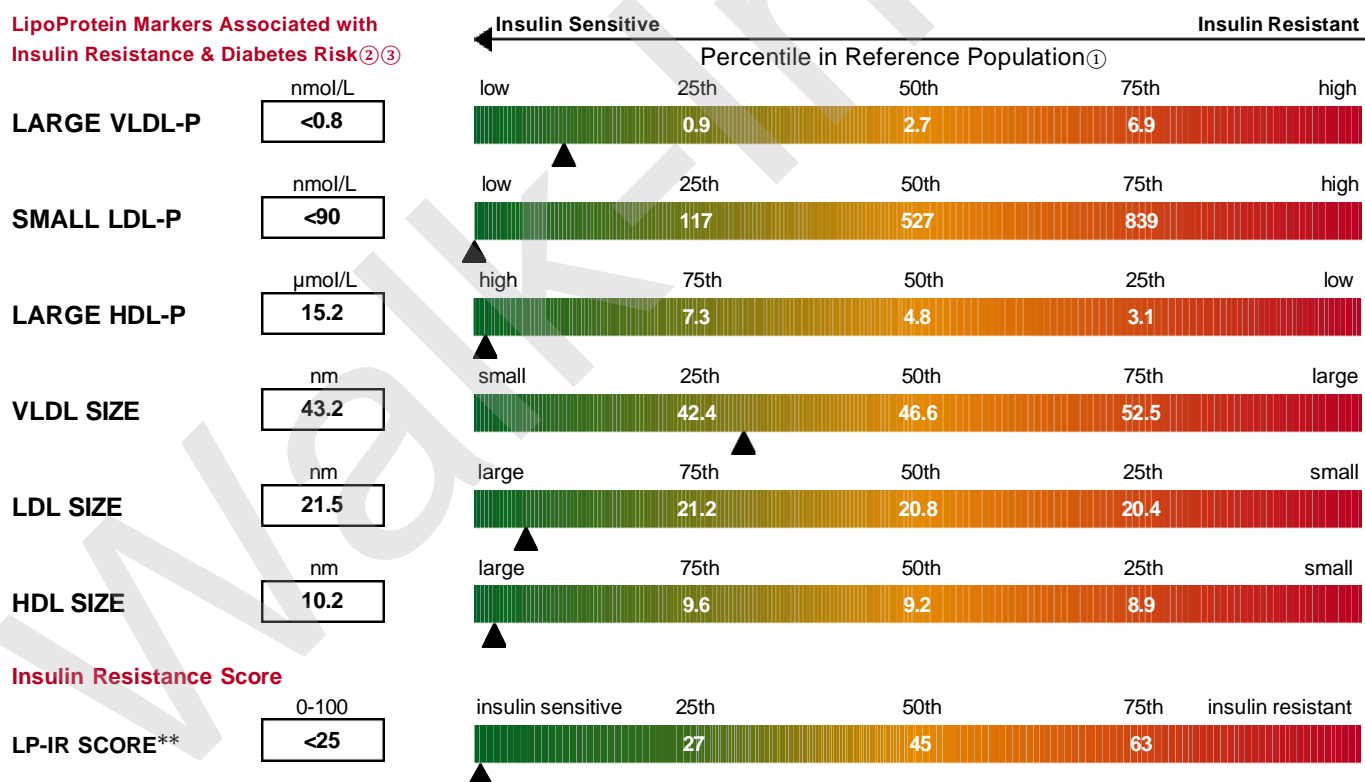
## PARTICLE CONCENTRATION AND SIZE

### ❖ LDL and HDL Particles



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

### LipoProtein Markers Associated with Insulin Resistance & Diabetes Risk<sup>②③</sup>



\*\* 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.

❖ This test was developed and its performance characteristics determined by LabCorp. It has not been cleared or approved 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.