## **SERVICE DELIVERABLES FOR BLOOD ANALYSIS**

## Research use only

All listed biomarkers are available for Serum and Heparin plasma samples. Biomarkers marked with \* are not available for EDTA plasma samples. Biomarkers marked with \*\* are not available for Citrate plasma samples.

Name	Unit	Name	Unit
Cholesterol		Phosphatidylcholines	mmol/l
Total cholesterol	mmol/l	Sphingomyelins	mmol/l
Total cholesterol minus HDL-C	mmol/l	Apolipoproteins	
Remnant cholesterol (non-HDL, non-LDL -cholesterol)	mmol/l	Aponpoprotenis	
VLDL cholesterol	mmol/l	Apolipoprotein B	g/l
Clinical LDL cholesterol	mmol/l	Apolipoprotein A1	g/l
LDL cholesterol	mmol/l	Ratio of apolipoprotein B to apolipoprotein A1	ratio
HDL cholesterol	mmol/l	Fatty aside	
		Fatty acids	
Triglycerides		Total fatty acids	mmol/l
Total triglycerides	mmol/l	Degree of unsaturation	degree
Triglycerides in VLDL	mmol/l	Omega-3 fatty acids	mmol/l
Triglycerides in LDL	mmol/l	Omega-6 fatty acids	mmol/l
Triglycerides in HDL	mmol/l	Polyunsaturated fatty acids	mmol/l
DI LUCIU		Monounsaturated fatty acids	mmol/l
Phospholipids		Saturated fatty acids	mmol/l
Total phospholipids in lipoprotein particles	mmol/l	Linoleic acid	mmol/l
Phospholipids in VLDL	mmol/l	Docosahexaenoic acid	mmol/l
Phospholipids in LDL	mmol/l	Fatty acid ratios	
Phospholipids in HDL	mmol/l		
		Ratio of omega-3 fatty acids to total fatty acids	%
Cholesteryl esters		Ratio of omega-6 fatty acids to total fatty acids	%
Total esterified cholesterol	mmol/l	Ratio of polyunsaturated fatty acids to total fatty acids	%
Cholesteryl esters in VLDL	mmol/l	Ratio of monounsaturated fatty acids to total fatty acids	%
Cholesteryl esters in LDL	mmol/l	Ratio of saturated fatty acids to total fatty acids	%
Cholesteryl esters in HDL	mmol/l	Ratio of linoleic acid to total fatty acids	%
Cholostory Cotors in Fibe	1111101/1	Ratio of docosahexaenoic acid to total fatty acids	%
Free cholesterol		Ratio of polyunsaturated fatty acids to monounsaturated fatty aci Ratio of omega-6 fatty acids to omega-3 fatty acids	ds ratio ratio
Total free cholesterol	mmol/l	realio of official official to official official official	Tatio
Free cholesterol in VLDL	mmol/l	Amino acids	
Free cholesterol in LDL	mmol/l	Alanine	mmal/l
Free cholesterol in HDL	mmol/l	Glutamine	mmol/l mmol/l
		Glycine	mmol/l
Total lipids		Histidine	mmol/l
Total lipids in lipoprotein particles	mmol/l	Histidirle	1111101/1
Total lipids in VLDL	mmol/l	Branched-chain amino acids	
Total lipids in LDL	mmol/l	Total associated in a flore short short and a side (levels)	
Total lipids in HDL	mmol/l	Total concentration of branched-chain amino acids (leucine +	mmol/l
·		isoleucine + valine) Isoleucine	mmal/l
Lipoprotein particle concentrations			mmol/l
Total concentration of lipoprotein particles	mmol/l	Leucine	mmol/l mmol/l
Concentration of VLDL particles	mmol/l	Valine	HIHOI/I
Concentration of LDL particles	mmol/l	Aromatic amino acids	
Concentration of HDL particles	mmol/l	Di Li i	1.0
·		Phenylalanine Tyrosine	mmol/l mmol/l
Lipoprotein particle sizes		•	1111101/1
Average diameter for VLDL particles	nm	Glycolysis related metabolites	
Average diameter for LDL particles	nm	Glucose	mmol/l
Average diameter for HDL particles	nm	Lactate	mmol/l
Other lipids		Pyruvate	mmol/l
<b>P</b>		Citrate **	mmol/l
Phosphoglycerides	mmol/l	Glycerol *	mmol/l
Ratio of triglycerides to phosphoglycerides	ratio		
Total cholines	mmol/l		

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Name	Unit	Name	Unit
Ketone bodies		Cholesterol in very small VLDL	mmol/l
3Hvdrovybutyrato	mmol/l	Cholesteryl esters in very small VLDL	mmol/l
3-Hydroxybutyrate Acetate	mmol/l	Free cholesterol in very small VLDL	mmol/l
Acetoacetate	mmol/l	Triglycerides in very small VLDL	mmol/l
Acetone	mmol/l	IDL (average diameter 28.6 nm)	
Fluid balance		Concentration of IDL particles	mmol/l
Creatinine	mmol/l	Total lipids in IDL	mmol/l
Albumin	g/l	Phospholipids in IDL	mmol/l
	9/-	Cholesterol in IDL	mmol/l
Inflammation		Cholesteryl esters in IDL Free cholesterol in IDL	mmol/l mmol/l
Glycoprotein acetyls	mmol/l	Triglycerides in IDL	mmol/l
Lipoprotein subclasses		Large LDL (average diameter 25.5 nm)	
Chylomicrons and extremely large VLDL		Concentration of large LDL particles	mmol/l
(particle diameters from 75 nm upwards)		Total lipids in large LDL	mmol/l
Occupation of above size and automobile large VI DI modified		Phospholipids in large LDL	mmol/l
Concentration of chylomicrons and extremely large VLDL particles		Cholesterol in large LDL	mmol/l
Total lipids in chylomicrons and extremely large VLDL	mmol/l	Cholesteryl esters in large LDL	mmol/l
Phospholipids in chylomicrons and extremely large VLDL	mmol/l	Free cholesterol in large LDL	mmol/l
Cholesterol in chylomicrons and extremely large VLDL	mmol/l	Triglycerides in large LDL	mmol/l
Cholesteryl esters in chylomicrons and extremely large VLDL	mmol/l	g.,	
Free cholesterol in chylomicrons and extremely large VLDL Triglycerides in chylomicrons and extremely large VLDL	mmol/l mmol/l	Medium LDL (average diameter 23 nm)	
ringlycendes in chylomicions and extremely large VLDL	1111101/1	Concentration of medium LDL particles	mmol/l
Very large VLDL (average diameter 64 nm)		Total lipids in medium LDL	mmol/l
Occasionation of considering VII DI monticles	1/1	Phospholipids in medium LDL	mmol/l
Concentration of very large VLDL particles	mmol/l	Cholesterol in medium LDL	mmol/l
Total lipids in very large VLDL	mmol/l	Cholesteryl esters in medium LDL	mmol/l
Phospholipids in very large VLDL	mmol/l	Free cholesterol in medium LDL	mmol/l
Cholesterol in very large VLDL	mmol/l	Triglycerides in medium LDL	mmol/l
Cholesteryl esters in very large VLDL	mmol/l		
Free cholesterol in very large VLDL	mmol/l	Small LDL (average diameter 18.7 nm)	
Triglycerides in very large VLDL	mmol/l	Concentration of small LDL particles	mmol/l
Large VLDL (average diameter 53.6 nm)		Total lipids in small LDL	mmol/l
Concentration of large VLDL particles	mmol/l	Phospholipids in small LDL	mmol/l
Concentration of large VLDL particles Total lipids in large VLDL	mmol/l	Cholesterol in small LDL	mmol/l
Phospholipids in large VLDL	mmol/l	Cholesteryl esters in small LDL	mmol/l
Cholesterol in large VLDL	mmol/l	Free cholesterol in small LDL	mmol/l
Cholesteryl esters in large VLDL	mmol/l	Triglycerides in small LDL	mmol/l
Free cholesterol in large VLDL	mmol/l		
Triglycerides in large VLDL	mmol/l	Very large HDL (average diameter 14.3 nm)	
		Concentration of very large HDL particles	mmol/l
Medium VLDL (average diameter 44.5 nm)		Total lipids in very large HDL	mmol/l
Concentration of medium VLDL particles	mmol/l	Phospholipids in very large HDL	mmol/l
Total lipids in medium VLDL	mmol/l	Cholesterol in very large HDL	mmol/l
Phospholipids in medium VLDL	mmol/l	Cholesteryl esters in very large HDL	mmol/l
Cholesterol in medium VLDL	mmol/l	Free cholesterol in very large HDL	mmol/l
Cholesteryl esters in medium VLDL	mmol/l	Triglycerides in very large HDL	mmol/l
Free cholesterol in medium VLDL	mmol/l	Large HDL (average diameter 12.1 nm)	
Triglycerides in medium VLDL	mmol/l	Concentration of large HDL particles	mmol/l
Small VLDL (average diameter 36.8 nm)		Total lipids in large HDL	mmol/l
(		Phospholipids in large HDL	mmol/l
Concentration of small VLDL particles	mmol/l	Cholesterol in large HDL	mmol/l
Total lipids in small VLDL	mmol/l	Cholesteryl esters in large HDL	mmol/l
Phospholipids in small VLDL	mmol/l	Free cholesterol in large HDL	mmol/l
Cholesterol in small VLDL	mmol/l	Triglycerides in large HDL	mmol/l
Cholesteryl esters in small VLDL	mmol/l	mggoondoo in largo HDL	1111101/1
Free cholesterol in small VLDL	mmol/l	Medium HDL (average diameter 10.9 nm)	
Triglycerides in small VLDL	mmol/l	Concentration of medium HDL particles	mmol/l
Very small VLDL (average diameter 31.3 nm)		Total lipids in medium HDL	mmol/l
, , ,		Phospholipids in medium HDL	mmol/l
Concentration of very small VLDL particles	mmol/l	Cholesterol in medium HDL	mmol/l
Total lipids in very small VLDL	mmol/l	Cholesteryl esters in medium HDL	mmol/l
Phospholipids in very small VLDL	mmol/l	•	

Name	Unit	Name	Unit
Free cholesterol in medium HDL	mmol/l	Triglycerides to total lipids ratio in IDL	%
Triglycerides in medium HDL	mmol/l	Large LDL ratios	,,
Small HDL (average diameter 8.7 nm)		•	0/
Concentration of small HDL particles	mmol/l	Phospholipids to total lipids ratio in large LDL Cholesterol to total lipids ratio in large LDL	% %
Total lipids in small HDL	mmol/l	Cholesteryl esters to total lipids ratio in large LDL	% %
Phospholipids in small HDL	mmol/l	Free cholesterol to total lipids ratio in large LDL	%
Cholesterol in small HDL	mmol/l	Triglycerides to total lipids ratio in large LDL	%
Cholesteryl esters in small HDL	mmol/l		, -
Free cholesterol in small HDL	mmol/l	Medium LDL ratios	
Triglycerides in small HDL	mmol/l	Phospholipids to total lipids ratio in medium LDL	%
		Cholesterol to total lipids ratio in medium LDL	%
Relative lipoprotein lipid concentrations		Cholesteryl esters to total lipids ratio in medium LDL	%
Chylomicrons and extremely large VLDL ratios		Free cholesterol to total lipids ratio in medium LDL	%
District of the second of the	0.4	Triglycerides to total lipids ratio in medium LDL	%
Phospholipids to total lipids ratio in chylomicrons	%	Ornall I DI matter	
and extremely large VLDL	0/	Small LDL ratios	
Cholesterol to total lipids ratio in chylomicrons	%	Phospholipids to total lipids ratio in small LDL	%
and extremely large VLDL	%	Cholesterol to total lipids ratio in small LDL	%
Cholesteryl esters to total lipids ratio in chylomicrons and extremely large VLDL	70	Cholesteryl esters to total lipids ratio in small LDL	%
Free cholesterol to total lipids ratio in chylomicrons	%	Free cholesterol to total lipids ratio in small LDL	%
and extremely large VLDL	/0	Triglycerides to total lipids ratio in small LDL	%
Triglycerides to total lipids ratio in chylomicrons	%	Name lance UDL anti-a	
and extremely large VLDL	70	Very large HDL ratios	
and oxiomoly large vebe		Phospholipids to total lipids ratio in very large HDL	%
Very large VLDL ratios		Cholesterol to total lipids ratio in very large HDL	%
Phospholipids to total lipids ratio in very large VLDL	%	Cholesteryl esters to total lipids ratio in very large HDL	%
Cholesterol to total lipids ratio in very large VLDL	%	Free cholesterol to total lipids ratio in very large HDL	%
Cholesteryl esters to total lipids ratio in very large VLDL	%	Triglycerides to total lipids ratio in very large HDL	%
Free cholesterol to total lipids ratio in very large VLDL	%	Large HDL ratios	
Triglycerides to total lipids ratio in very large VLDL	%	Large TIDE ratios	
		Phospholipids to total lipids ratio in large HDL	%
Large VLDL ratios		Cholesterol to total lipids ratio in large HDL	%
Phospholipids to total lipids ratio in large VLDL	%	Cholesteryl esters to total lipids ratio in large HDL	%
Cholesterol to total lipids ratio in large VLDL	%	Free cholesterol to total lipids ratio in large HDL	%
Cholesteryl esters to total lipids ratio in large VLDL	%	Triglycerides to total lipids ratio in large HDL	%
Free cholesterol to total lipids ratio in large VLDL	%	Medium HDL ratios	
Triglycerides to total lipids ratio in large VLDL	%		
Medium VLDL ratios		Phospholipids to total lipids ratio in medium HDL	%
Medium VEDE ratios		Cholesterol to total lipids ratio in medium HDL	%
Phospholipids to total lipids ratio in medium VLDL	%	Cholesteryl esters to total lipids ratio in medium HDL	% %
Cholesterol to total lipids ratio in medium VLDL	%	Free cholesterol to total lipids ratio in medium HDL	%
Cholesteryl esters to total lipids ratio in medium VLDL	%	Triglycerides to total lipids ratio in medium HDL	70
Free cholesterol to total lipids ratio in medium VLDL	%	Small HDL ratios	
Triglycerides to total lipids ratio in medium VLDL	%	Phospholipide to total lipide ratio in small HDI	0/
Small VLDL ratios		Phospholipids to total lipids ratio in small HDL Cholesterol to total lipids ratio in small HDL	% %
		Cholesteryl esters to total lipids ratio in small HDL	%
Phospholipids to total lipids ratio in small VLDL	%	Free cholesterol to total lipids ratio in small HDL	%
Cholesterol to total lipids ratio in small VLDL	%	Triglycerides to total lipids ratio in small HDL	%
Cholesteryl esters to total lipids ratio in small VLDL	%	ingly condected total inplied ratio in onlain 1.22	,,
Free cholesterol to total lipids ratio in small VLDL	%		
Triglycerides to total lipids ratio in small VLDL	%	If Nightingale is not able to deliver the Service Deliverables d	ue to inability
Very small VLDL ratios		of Nightingale's Service to analyse the data with more to	than 20% of
Dhaanhalinida ta tatal linida vatia in yawa amali VI Di	0/	metabolic measures missing for a Sample, there will be no c	harge for the
Phospholipids to total lipids ratio in very small VLDL Cholesterol to total lipids ratio in very small VLDL	% %	respective Sample.	
Cholesteryl esters to total lipids ratio in very small VLDL	% %		
Free cholesterol to total lipids ratio in very small VLDL	% %		
Triglycerides to total lipids ratio in very small VLDL	%		
g., co.lide to total inplue falls in very official vebe	70		
IDL ratios			
Phospholipids to total lipids ratio in IDL	%		
Cholesterol to total lipids ratio in IDL	%		
Cholesteryl esters to total lipids ratio in IDL	%		
Free cholesterol to total lipids ratio in IDL	%		
•			