



BML439911

Laboratory Investigation Report

Name	: Ms. AIZAH ALI MOHAMMAD SHAHID ALI	Ref No.	: 43595
DOB	: 27/10/2017	Sample No.	: 2407449696
Age / Gender	: 6 Y 8 M / Female	Collected	: 17/07/2024 09:30
Referred by	: OUT PATIENT	Registered	: 17/07/2024 13:27
Centre	: CITICARE MEDICAL CENTER	Reported	: 18/07/2024 10:16

BIOCHEMISTRY

Test	Result	Flag	Unit	Reference Range	Methodology
APOLIPOPROTEIN A1 [^]	147		mg/dL	108 - 225 Please note change in reference range and method. Source: Roche IFU.	Immunoturbidimetric assay

INTERPRETATION NOTES :

Apolipoproteins are the protein constituents of the lipoproteins. The lipoproteins are classified according to their ultracentrifugal flotation density. Apolipoprotein A-1 is the major protein constituent of high-density lipoproteins (HDL). HDL are synthesized by the intestines and the liver. They transport excess cellular cholesterol from extrahepatic tissue and peripheral cells to the liver. Additionally, apolipoprotein A-1 activates the enzyme lecithin-cholesterol-acyltransferase (LCAT), which catalyzes the esterification of cholesterol, thereby enhancing the lipid-carrying capacity of the lipoproteins.

Apolipoprotein A-1 levels increase in liver disease, pregnancy and as a result of estrogen administration (e.g. oral contraceptives). Apolipoprotein A-1 levels decrease in inherited hypo- α -lipoproteinemia (e.g. Tangier disease), cholestasis, sepsis and atherosclerosis. The liver also synthesizes very low density lipoproteins (VLDL) which mainly contain triglycerides and cholesterol. In the presence of lipoprotein lipase the triglycerides are hydrolyzed and LDL-particles with a high proportion of cholesterol are formed. Apolipoprotein B is the main constituent of LDL.

The combined determination of apolipoprotein A-1/apolipoprotein B and the calculation of the apolipoprotein B : apolipoprotein A-1 ratio can reflect a lipid metabolism disorder and the risk of developing atherosclerosis or coronary heart disease particularly well, thus providing an excellent addition to the classical HDL/LDL-cholesterol determination. A high level of apolipoprotein A-1 (HDL) and a low level of apolipoprotein B (LDL) correlate best with a low risk for these diseases.

APOLIPOPROTEIN B [^]	77		mg/dL	60 - 141 Please note change in reference range and method. Source: Roche IFU.	Immunoturbidimetric assay
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INTERPRETATION NOTES :

Apolipoproteins are the protein constituents of the lipoproteins. The lipoproteins are classified according to their ultracentrifugal flotation density. The liver synthesizes very low density lipoproteins (VLDL) which mainly contain triglycerides and cholesterol. In the presence of lipoprotein lipase, the triglycerides are hydrolyzed and LDL particles with a high proportion of cholesterol are formed. Apolipoprotein B is the major protein constituent of LDL. About one third of the LDL particles provide cholesterol to peripheral cells. The other two thirds are metabolized by the liver. LDL-uptake in all of these tissues occurs via LDL receptors. Apolipoprotein B levels increase in pregnancy, hypercholesterolemia, LDL receptor defects, bile obstruction, type II hyperlipidemia and nephrotic syndrome. Apolipoprotein B levels decrease during liver disease, α - β lipoproteinemia, sepsis and estrogen administration.

The combined determination of apolipoprotein A-I/apolipoprotein B and the calculation of the apolipoprotein B : apolipoprotein A-I ratio can

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BHAVYA THENDANKANDY
Biochemistry Technologist

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Page 1 of 2

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Test result pertains only to the sample tested and to be interpreted in the light of clinical history. These tests are accredited under ISO 15189:2012 unless specified by (^). Test marked with # is performed in an accredited referral laboratory.





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APOLIPOPROTEIN B/A1 Ratio	0.5			<0.8 Source: Mayo Clinic Laboratories	Calculation

Sample Type : Serum

End of Report

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