

Patient: **SAMPLE**
PATIENT

DOB:

Sex:

MRN:

3508 Essential and Metabolic Fatty Acids Analysis (RBCs) - Plasma
Methodology: CGMS

Omega-3 Fatty Acids	
Analyte	Reference Range
(cold water fish, flax, walnut) α-Linolenic (ALA) 18:3 n3	0.14 >= 0.09 wt %
Eicosapentaenoic (EPA) 20:5 n3	0.86 >= 0.16 wt %
Docosapentaenoic (DPA) 22:5 n3	2.53 >= 1.14 wt %
Docosahexaenoic (DHA) 22:6 n3	7.3 >= 2.1 wt %
% Omega-3s	10.9 >= 3.8

Omega-9 Fatty Acids	
Analyte	Reference Range
(olive oil) Oleic 18:1 n9	11 10-13 wt %
Nervonic 24:1 n9	3.2 2.1-3.5 wt %
% Omega-9s	14.2 13.3-16.6

Saturated Fatty Acids	
Analyte	Reference Range
(meat, dairy, coconuts, palm oils) Palmitic C16:0	17 18-23 wt %
Stearic C18:0	16 14-17 wt %
Arachidic C20:0	0.23 0.22-0.35 wt %
Behenic C22:0	0.98 0.92-1.68 wt %
Tricosanoic C23:0	0.22 0.12-0.18 wt %
Lignoceric C24:0	2.9 2.1-3.8 wt %
Pentadecanoic C15:0	0.11 0.07-0.15 wt %
Margaric C17:0	0.27 0.22-0.37 wt %
% Saturated Fats	37.4 39.8-43.6

Omega-6 Fatty Acids	
Analyte	Reference Range
(vegetable oil, grains, most meats, dairy) Linoleic (LA) 18:2 n6	9.6 10.5-16.9 wt %
γ-Linolenic (GLA) 18:3 n6	0.09 0.03-0.13 wt %
Dihomo-γ-linolenic (DGLA) 20:3 n6	1.10 >= 1.19 wt %
Arachidonic (AA) 20:4 n6	22 15-21 wt %
Docosatetraenoic (DTA) 22:4 n6	3.24 1.50-4.20 wt %
Eicosadienoic 20:2 n6	0.18 <= 0.26 wt %
% Omega-6s	36.4 30.5-39.7

Monounsaturated Fatty Acids	
Analyte	Reference Range
Palmitoleic 16:1 n7	0.24 <= 0.64 wt %
Vaccenic 18:1 n7	0.65 <= 1.13 wt %

Trans Fats	
Analyte	Reference Range
Elaidic 18:1 n9t	0.27 <= 0.59 wt %

Delta-6-Desaturase Activity	
Analyte	Reference Range
Linoleic / DGLA 18:2 n6 / 20:3 n6	8.7 6.0-12.3

Cardiovascular Risk	
Analyte	Reference Range
Omega-6s / Omega-3s	3.4 3.4-10.7
AA / EPA 20:4 n6 / 20:5 n3	26 12-125
Omega-3 Index	8.2 >= 4.0

The Essential Fatty Acid reference ranges are based on an adult population.



Fatty Acid Metabolism

Omega-3 Metabolism

Omega-6 Metabolism

