Test Definition: FAPEP

Fatty Acid Profile, Essential, Serum

Reporting Title: Fatty Acid Profile, Essential, S
Performing Location: Rochester

Specimen Requirements:

Collection Container/Tube:
Preferred: Red top
Acceptable: Serum gel
Submission Container/Tube: Plastic vial
Specimen Volume: 0.5 mL
Collection Instructions:
1. Fasting-overnight (12-14 hours).
2. Patient must not consume any alcohol for 24 hours before the specimen is drawn.
3. Spin down within 45 minutes of draw.
Additional Information:
1. Patient's age is required.
2. Include information regarding treatment, family history, and tentative diagnosis.
Forms: If not ordering electronically, submit a Biochemical Genetics Request Form (Supply T439) with the specimen.

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Refrigerated	24 hours

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
17021	Lauric Acid, C12:0	Numeric	nmol/mL	35150-2
17022	Myristic Acid, C14:0	Numeric	nmol/mL	35157-7
17023	Hexadecenoic Acid, C16:1w9	Numeric	nmol/mL	35155-1
17024	Palmitoleic Acid, C16:1w7	Numeric	nmol/mL	35162-7
17025	Palmitic Acid, C16:0	Numeric	nmol/mL	35161-9
17026	g-Linolenic Acid, C18:3w6	Numeric	nmol/mL	35163-5
17027	a-Linolenic Acid, C18:3w3	Numeric	nmol/mL	35164-3
17028	Linoleic Acid, C18:2w6	Numeric	nmol/mL	35165-0
17029	Oleic Acid, C18:1w9	Numeric	nmol/mL	35166-8
17030	Vaccenic Acid, C18:1w7	Numeric	nmol/mL	35167-6
17031	Stearic Acid, C18:0	Numeric	nmol/mL	35149-4

Result ID	Reporting Name	Type	Unit	LOINC®
17032	EPA, C20:5w3	Numeric	nmol/mL	35173-4
17033	Arachidonic Acid, C20:4w6	Numeric	nmol/mL	35168-4
17034	Mead Acid, C20:3w9	Numeric	nmol/mL	35172-6
17035	h-g-Linolenic, C20:3w6	Numeric	nmol/mL	35171-8
17036	Arachidic Acid, C20:0	Numeric	nmol/mL	35169-2
17037	DHA, C22:6w3	Numeric	nmol/mL	35174-2
17038	DPA, C22:5w6	Numeric	nmol/mL	35181-7
17039	DPA, C22:5w3	Numeric	nmol/mL	35180-9
17040	DTA, C22:4w6	Numeric	nmol/mL	35182-5
17041	Docosenoic Acid, C22:1	Numeric	nmol/mL	35160-1
17042	Nervonic Acid, C24:1w9	Numeric	nmol/mL	35170-0
17043	Triene Tetraene Ratio	Numeric		35411-8
17044	Total Saturated Acid	Numeric	mmol/L	35175-9
17045	Total Monounsaturated Acid	Numeric	mmol/L	35176-7
17046	Total Polyunsaturated Acid	Numeric	mmol/L	35177-5
17047	Total w3	Numeric	mmol/L	35178-3
17048	Total w6	Numeric	mmol/L	35179-1
17049	Total Fatty Acids	Numeric	mmol/L	24461-6
17054	Interpretation	Alphanumeric		59462-2

CPT Code: 1 × 82544

Reference Values:

Lauric Acid, C12:0
<1 year: 6-190 nmol/mL
1-17 years: 5-80 nmol/mL
> or =18 years: 6-90 nmol/mL

Myristic Acid, C14:0
<1 year: 30-320 nmol/mL
1-17 years: 40-290 nmol/mL
> or =18 years: 30-450 nmol/mL

Hexadecenoic Acid, C16:1w9
<1 year: 21-69 nmol/mL
1-17 years: 24-82 nmol/mL
> or =18 years: 25-105 nmol/mL

Palmitoleic Acid, C16:1w7
<1 year: 20-1,020 nmol/mL
1-17 years: 100-670 nmol/mL
> or =18 years: 110-1,130 nmol/mL

Palmitic Acid, C16:0
<1 year: 720-3,120 nmol/mL
1-17 years: 960-3,460 nmol/mL
> or =18 years: 1,480-3,730 nmol/mL

Gamma-Linolenic Acid, C18:3w6
<1 year: 6-110 nmol/mL
1-17 years: 9-130 nmol/mL
> or =18 years: 16-150 nmol/mL

Alpha-Linolenic Acid, C18:3w3
<1 year: 10-190 nmol/mL
1-17 years: 20-120 nmol/mL
> or =18 years: 50-130 nmol/mL

Linoleic Acid, C18:2w6
1-31 days: 350-2,660 nmol/mL
32 days-11 months: 1,000-3,300 nmol/mL
1-17 years: 1,600-3,500 nmol/mL
> or =18 years: 2,270-3,850 nmol/mL

Oleic Acid, C18:1w9
<1 year: 250-3,500 nmol/mL
1-17 years: 350-3,500 nmol/mL
> or =18 years: 650-3,500 nmol/mL

Vaccenic Acid, C18:1w7
<1 year: 140-720 nmol/mL
1-17 years: 320-900 nmol/mL
> or =18 years: 280-740 nmol/mL

Stearic Acid, C18:0
<1 year: 270-1,140 nmol/mL
1-17 years: 280-1,170 nmol/mL
> or =18 years: 590-1,170 nmol/mL

EPA, C20:5w3
<1 year: 2-60 nmol/mL
1-17 years: 8-90 nmol/mL
> or =18 years: 14-100 nmol/mL

Arachidonic Acid, C20:4w6
<1 year: 110-1,110 nmol/mL
1-17 years: 350-1,030 nmol/mL
> or =18 years: 520-1,490 nmol/mL

Mead Acid, C20:3w9
1-31 days: 8-60 nmol/mL
32 days-11 months: 3-24 nmol/mL
1-17 years: 7-30 nmol/mL
> or =18 years: 7-30 nmol/mL

Homo-Gamma-Linolenic C20:3w6
<1 year: 30-170 nmol/mL
1-17 years: 60-220 nmol/mL
> or =18 years: 50-250 nmol/mL

Arachidic Acid, C20:0
<1 year: 30-120 nmol/mL
1-17 years: 30-90 nmol/mL
> or =18 years: 50-90 nmol/mL

DHA, C22:6w3
<1 year: 10-220 nmol/mL
1-17 years: 30-160 nmol/mL
> or =18 years: 30-250 nmol/mL

DPA, C22:5w6
<1 year: 3-70 nmol/mL
1-17 years: 10-50 nmol/mL
> or =18 years: 10-70 nmol/mL

DPA, C22:5w3
<1 year: 6-110 nmol/mL
1-17 years: 30-270 nmol/mL
> or =18 years: 20-210 nmol/mL

DTA, C22:4w6
<1 year: 2-50 nmol/mL
1-17 years: 10-40 nmol/mL
> or =18 years: 10-80 nmol/mL

Docosenoic Acid, C22:1
<1 year: 2-20 nmol/mL
1-17 years: 4-13 nmol/mL
> or =18 years: 4-13 nmol/mL

Nervonic Acid, C24:1w9
<1 year: 30-150 nmol/mL
1-17 years: 50-130 nmol/mL
> or =18 years: 60-100 nmol/mL

Triene/Tetraene Ratio
1-31 days: 0.017-0.083
32 days-17 years: 0.013-0.050
> or =18 years: 0.010-0.038

Total Saturated Acid
<1 year: 1.2-4.6 mmol/L
1-17 years: 1.4-4.9 mmol/L
> or =18 years: 2.5-5.5 mmol/L

Total Monounsaturated Acid
<1 year: 0.3-4.6 mmol/L
1-17 years: 0.5-4.4 mmol/L
> or =18 years: 1.3-5.8 mmol/L

Total Polyunsaturated Acid
<1 year: 1.1-4.9 mmol/L
1-17 years: 1.7-5.3 mmol/L
> or =18 years: 3.2-5.8 mmol/L

Total w3
<1 year: 0.0-0.4 mmol/L
1-17 years: 0.1-0.5 mmol/L
> or =18 years: 0.2-0.5 mmol/L

Total w6
<1 year: 0.9-4.4 mmol/L
1-17 years: 1.6-4.7 mmol/L
> or =18 years: 3.0-5.4 mmol/L

Total Fatty Acids
<1 year: 3.3-14.0 mmol/L
1-17 years: 4.4-14.3 mmol/L
> or =18 years: 7.3-16.8 mmol/L