

Reporting Title: Fatty Acid Profile, Essential, P**Performing Location:** Rochester**Necessary Information:**

1. Patient's age is required.
2. Include information regarding treatment, family history, and tentative diagnosis.

Specimen Requirements:

Patient Preparation:

1. For nutritional assessment, patient should fast overnight (12-14 hours); for patients with a suspected fatty acid oxidation disorder, collect prior to next feeding as fasting is contraindicated.
2. Patient must not consume any alcohol for 24 hours before the specimen is collected.

Collection Container/Tube:

Preferred: Green top (sodium heparin)

Acceptable: Lavender top (EDTA) or green top (lithium heparin)

Submission Container/Tube: Plastic vial

Specimen Volume: 0.5 mL

Collection Instructions: Centrifuge and aliquot plasma into plastic vial.

Specimen Minimum Volume:

0.15 mL

Specimen Type	Temperature	Time	Special Container
Plasma	Frozen (preferred)	92 days	
	Refrigerated	72 hours	

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
36549	Lauric Acid, C12:0	Numeric	nmol/mL	35150-2
36550	Myristic Acid, C14:0	Numeric	nmol/mL	35157-7
36551	Hexadecenoic Acid, C16:1w9	Numeric	nmol/mL	35155-1
36552	Palmitoleic Acid, C16:1w7	Numeric	nmol/mL	35162-7
36553	Palmitic Acid, C16:0	Numeric	nmol/mL	35161-9
36554	g-Linolenic Acid, C18:3w6	Numeric	nmol/mL	35163-5

Result ID	Reporting Name	Type	Unit	LOINC®
36555	α-Linolenic Acid, C18:3w3	Numeric	nmol/mL	35164-3
36556	Linoleic Acid, C18:2w6	Numeric	nmol/mL	35165-0
36557	Oleic Acid, C18:1w9	Numeric	nmol/mL	35166-8
36558	Vaccenic Acid, C18:1w7	Numeric	nmol/mL	35167-6
36559	Stearic Acid, C18:0	Numeric	nmol/mL	35149-4
36560	EPA, C20:5w3	Numeric	nmol/mL	35173-4
36561	Arachidonic Acid, C20:4w6	Numeric	nmol/mL	35168-4
36562	Mead Acid, C20:3w9	Numeric	nmol/mL	35172-6
36563	h-g-Linolenic, C20:3w6	Numeric	nmol/mL	35171-8
36564	Arachidic Acid, C20:0	Numeric	nmol/mL	35169-2
36565	DHA, C22:6w3	Numeric	nmol/mL	35174-2
36566	DPA, C22:5w6	Numeric	nmol/mL	35181-7
36567	DPA, C22:5w3	Numeric	nmol/mL	35180-9
36568	DTA, C22:4w6	Numeric	nmol/mL	35182-5
36569	Docosenoic Acid, C22:1	Numeric	nmol/mL	35160-1
36570	Nervonic Acid, C24:1w9	Numeric	nmol/mL	35170-0
36571	Triene Tetraene Ratio	Numeric		35411-8
36572	Total Saturated Acid	Numeric	mmol/L	35175-9
36573	Total Monounsaturated Acid	Numeric	mmol/L	35176-7
36574	Total Polyunsaturated Acid	Numeric	mmol/L	35177-5
36575	Total w3	Numeric	mmol/L	35178-3
36576	Total w6	Numeric	mmol/L	35179-1
36577	Total Fatty Acids	Numeric	mmol/L	24461-6
36578	Interpretation (PFAPE)	Alphanumeric		59462-2

LOINC and CPT codes are provided by the performing laboratory.

Supplemental Report:

No

CPT Code Information:

82725

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

< or =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
< or =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
< or =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