

Reporting Title: Fatty Acid Profile, Essential, S

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: Red top
- Acceptable: Serum gel
- Submission Container/Tube: Plastic vial
- Specimen Volume: 0.5 mL
- Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Forms:

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

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