

Reporting Title: Fatty Acid Profile, Mitochondrial,S
Performing Location: Mayo Clinic Laboratories - Rochester Main Campus

Necessary Information:

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

Specimen Requirements:

Patient Preparation:

- 1. Fasting:
 - a. **For nutritional assessment: 12 hours, required**
 - b. For patients with a suspected fatty acid oxidation disorder, prolonged fasting is contraindicated. Collect as close to the patient's next scheduled meal/feeding as possible.
- 2. Patient **must not** consume any alcohol for 24 hours before the specimen collection.

Supplies: Sarstedt Aliquot Tube, 5 mL (T914)

Collection Container/Tube:

Preferred: Serum gel

Acceptable: Red top

Submission Container/Tube: Plastic vial

Specimen Volume: 0.5 mL

Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

Forms:

[If not ordering electronically, complete, print, and send a Biochemical Genetics Test Request](#) (T798) with the specimen.

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

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
17007	Octanoic Acid, C8:0	Numeric	nmol/mL	35145-2
17008	Decenoic Acid, C10:1	Numeric	nmol/mL	35147-8
17009	Decanoic Acid, C10:0	Numeric	nmol/mL	35146-0
17010	Lauroleic Acid, C12:1	Numeric	nmol/mL	35151-0
17011	Lauric Acid, C12:0	Numeric	nmol/mL	35150-2
17012	Tetradecadienoic Acid, C14:2	Numeric	nmol/mL	35148-6
17013	Myristoleic Acid, C14:1	Numeric	nmol/mL	35158-5
17014	Myristic Acid, C14:0	Numeric	nmol/mL	35157-7
17015	Hexadecadienoic Acid, C16:2	Numeric	nmol/mL	35154-4
17016	Palmitoleic Acid, C16:1w7	Numeric	nmol/mL	35162-7
17017	Palmitic Acid, C16:0	Numeric	nmol/mL	35161-9

17018	Linoleic Acid, C18:2w6	Numeric	nmol/mL	35165-0
17019	Oleic Acid, C18:1w9	Numeric	nmol/mL	35166-8
17020	Stearic Acid, C18:0	Numeric	nmol/mL	35149-4
17055	Interpretation	Alphanumeric		59462-2

LOINC® and CPT codes are provided by the performing laboratory.

Supplemental Report:

No

CPT Code Information:

82725

Reference Values:

Octanoic Acid, C8:0
<1 year: 7-63 nmol/mL
1-17 years: 9-41 nmol/mL
> or =18 years: 8-47 nmol/mL

Decenoic Acid, C10:1
<1 year: 0.8-4.8 nmol/mL
1-17 years: 1.6-6.6 nmol/mL
> or =18 years: 1.8-5.0 nmol/mL

Decanoic Acid, C10:0
<1 year: 2-62 nmol/mL
1-17 years: 3-25 nmol/mL
> or =18 years: 2-18 nmol/mL

Lauroleic Acid, C12:1
<1 year: 0.6-4.8 nmol/mL
1-17 years: 1.3-5.8 nmol/mL
> or =18 years: 1.4-6.6 nmol/mL

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

Tetradecadienoic Acid, C14:2
<1 year: 0.3-6.5 nmol/mL
1-17 years: 0.2-5.8 nmol/mL
> or =18 years: 0.8-5.0 nmol/mL

Myristoleic Acid, C14:1

<1 year: 1-46 nmol/mL

1-17 years: 1-31 nmol/mL

> or =18 years: 3-64 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

Hexadecadienoic Acid, C16:2

<1 year: 4-27 nmol/mL

1-17 years: 3-29 nmol/mL

> or =18 years: 10-48 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

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

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