

Reporting Title: Acylcarnitines, Quantitative, S**Performing Location:** Rochester**Necessary Information:**

1. Patient's age is required.
2. Include family history, clinical condition (asymptomatic or acute episode), diet, and drug therapy information.

Specimen Requirements:

Patient Preparation: Collect specimen just prior to a scheduled meal or feeding.

Collection Container/Tube:

Preferred: Serum gel

Acceptable: Red top

Submission Container/Tube: Plastic vial

Specimen Volume: 0.1 mL

Collection Instructions: Centrifuge and aliquot serum into plastic vial.

Specimen Minimum Volume:

0.04 mL

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)	60 days	
	Refrigerated	21 days	
	Ambient	72 hours	

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
92134	Acetylcarnitine, C2	Numeric	nmol/mL	30191-1
92135	Acrylylcarnitine, C3:1	Numeric	nmol/mL	43235-1
92136	Propionylcarnitine, C3	Numeric	nmol/mL	30551-6
92137	Formiminoglutamate, FIGLU	Numeric	nmol/mL	79628-4

Result ID	Reporting Name	Type	Unit	LOINC®
92138	Iso-/Butyrylcarnitine, C4	Numeric	nmol/mL	35655-0
92139	Tiglylcarnitine, C5:1	Numeric	nmol/mL	51416-6
92140	Isovaleryl-/2-Methylbutyrylcarn C5	Numeric	nmol/mL	30531-8
92141	3-OH-iso-/butyrylcarnitine, C4-OH	Numeric	nmol/mL	39000-5
92142	Hexenoylcarnitine, C6:1	Numeric	nmol/mL	74540-6
92143	Hexanoylcarnitine, C6	Numeric	nmol/mL	30358-6
92144	3-OH-isovalerylcarnitine, C5-OH	Numeric	nmol/mL	39001-3
92145	Benzoylcarnitine	Numeric	nmol/mL	39615-0
92146	Heptanoylcarnitine, C7	Numeric	nmol/mL	55871-8
92147	3-OH-hexanoylcarnitine, C6-OH	Numeric	nmol/mL	30236-4
92148	Phenylacetylcarnitine	Numeric	nmol/mL	90237-9
92149	Salicylcarnitine	Numeric	nmol/mL	90238-7
92150	Octenoylcarnitine, C8:1	Numeric	nmol/mL	30541-7
92151	Octanoylcarnitine, C8	Numeric	nmol/mL	30540-9
92152	Malonylcarnitine, C3-DC	Numeric	nmol/mL	55940-1
92153	Decadienoylcarnitine, C10:2	Numeric	nmol/mL	53471-9
92154	Decenoylcarnitine, C10:1	Numeric	nmol/mL	30328-9
92155	Decanoylcarnitine, C10	Numeric	nmol/mL	30327-1
92156	Methylmalonyl-/succinylcarn, C4-DC	Numeric	nmol/mL	51415-8
92157	3-OH-decenoylcarnitine, C10:1-OH	Numeric	nmol/mL	82478-9
92158	Glutarylcarnitine, C5-DC	Numeric	nmol/mL	30349-5
92159	Dodecenoylcarnitine, C12:1	Numeric	nmol/mL	30332-1
92160	Dodecanoylcarnitine, C12	Numeric	nmol/mL	30331-3
92161	3-Methylglutarylcarnitine, C6-DC	Numeric	nmol/mL	39002-1
92162	3-OH-dodecenoylcarnitine, C12:1-OH	Numeric	nmol/mL	59195-8
92163	3-OH-dodecanoylcarnitine, C12-OH	Numeric	nmol/mL	30233-1
92164	Tetradecadienoylcarnitine, C14:2	Numeric	nmol/mL	30564-9
92165	Tetradecenoylcarnitine, C14:1	Numeric	nmol/mL	30566-4
92166	Tetradecanoylcarnitine, C14	Numeric	nmol/mL	30565-6
92167	Octanedioylcarnitine, C8-DC	Numeric	nmol/mL	39014-6
92168	3-OH-tetradecenoylcarnitine C14:1OH	Numeric	nmol/mL	30190-3

Result ID	Reporting Name	Type	Unit	LOINC®
92169	3-OH-tetradecanoylcarnitine, C14-OH	Numeric	nmol/mL	30238-0
92170	Hexadecenoylcarnitine, C16:1	Numeric	nmol/mL	30357-8
92171	Hexadecanoylcarnitine, C16	Numeric	nmol/mL	30356-0
92172	3-OH-hexadecenoylcarnitine, C16:1-OH	Numeric	nmol/mL	30235-6
92173	3-OH-hexadecanoylcarnitine, C16-OH	Numeric	nmol/mL	30234-9
92174	Octadecadienoylcarnitine, C18:2	Numeric	nmol/mL	30534-2
92175	Octadecenoylcarnitine, C18:1	Numeric	nmol/mL	30542-5
92176	Octadecanoylcarnitine, C18	Numeric	nmol/mL	30560-7
92177	Dodecanedioylcarnitine, C12-DC	Numeric	nmol/mL	55855-1
92178	3-OH-octadecadienoylcarn, C18:2-OH	Numeric	nmol/mL	30237-2
92179	3-OH-octadecenoylcarnitine C18:1-OH	Numeric	nmol/mL	30312-3
92180	3-OH-octadecanoylcarnitine, C18-OH	Numeric	nmol/mL	35656-8
92181	Comment (ACRNS)	Alphanumeric		46252-3

LOINC and CPT codes are provided by the performing laboratory.

Supplemental Report:

No

CPT Code Information:

82017

Reference Values:

	< or =7 days (nmol/mL)	8 days-7 years (nmol/mL)	> or =8 years (nmol/mL)
Acetylcarnitine, C2	2.14-15.89	2.00-27.57	2.00-17.83
Acrylylcarnitine, C3:1	<0.04	<0.05	<0.07
Propionylcarnitine, C3	<0.55	<1.78	<0.88
Formiminoglutamate, FIGLU	<0.43	<0.08	<0.14
Iso-/Butyrylcarnitine, C4	<0.46	<1.06	<0.83
Tiglylcarnitine, C5:1	<0.05	<0.09	<0.11

Isovaleryl-/2-Methylbutyrylcarn C5	<0.38	<0.63	<0.51
3-OH-iso-/butyrylcarnitine, C4-OH	<0.13	<0.51	<0.18
Hexenoylcarnitine, C6:1	<0.12	<0.10	<0.15
Hexanoylcarnitine, C6	<0.14	<0.23	<0.17
3-OH-isovalerylcarnitine, C5-OH	<0.08	<0.12	<0.10
Benzoylcarnitine	<0.13	<0.07	<0.10
Heptanoylcarnitine, C7	<0.05	<0.05	<0.06
3-OH-hexanoylcarnitine, C6-OH	<0.08	<0.19	<0.09
Phenylacetylcarnitine	<0.15	<0.22	<0.29
Salicylcarnitine	<0.08	<0.09	<0.09
Octenoylcarnitine, C8:1	<0.48	<0.91	<0.88
Octanoylcarnitine, C8	<0.19	<0.45	<0.78
Malonylcarnitine, C3-DC	<0.09	<0.14	<0.26
Decadienoylcarnitine, C10:2	<0.11	<0.12	<0.26
Decenoylcarnitine, C10:1	<0.25	<0.46	<0.47
Decanoylcarnitine, C10	<0.27	<0.91	<0.88
Methylmalonyl-/succinylcarn, C4-DC	<0.05	<0.05	<0.05
3-OH-decenoylcarnitine, C10:1-OH	<0.12	<0.12	<0.13
Glutarylcarnitine, C5-DC	<0.06	<0.10	<0.11
Dodecenoylcarnitine, C12:1	<0.19	<0.37	<0.35
Dodecanoylcarnitine, C12	<0.18	<0.35	<0.26
3-Methylglutarylcarnitine, C6-DC	<0.28	<0.21	<0.43
3-OH-dodecenoylcarnitine, C12:1-OH	<0.11	<0.10	<0.13
3-OH-dodecanoylcarnitine, C12-OH	<0.06	<0.09	<0.08
Tetradecadienoylcarnitine, C14:2	<0.09	<0.13	<0.18
Tetradecenoylcarnitine, C14:1	<0.16	<0.35	<0.24
Tetradecanoylcarnitine, C14	<0.11	<0.15	<0.12
Octanedioylcarnitine, C8-DC	<0.25	<0.19	<0.19
3-OH-tetradecenoylcarnitine C14:1OH	<0.06	<0.18	<0.13
3-OH-tetradecanoylcarnitine, C14-OH	<0.04	<0.05	<0.08
Hexadecenoylcarnitine, C16:1	<0.15	<0.21	<0.10
Hexadecanoylcarnitine, C16	<0.36	<0.52	<0.23

3-OH-hexadecenoylcarnitine, C16:1-OH	<0.78	<0.36	<0.06
3-OH-hexadecanoylcarnitine, C16-OH	<0.10	<0.07	<0.06
Octadecadienoylcarnitine, C18:2	<0.12	<0.31	<0.24
Octadecenoylcarnitine, C18:1	<0.25	<0.45	<0.39
Octadecanoylcarnitine, C18	<0.10	<0.12	<0.14
Dodecanedioylcarnitine, C12-DC	<0.10	<0.04	<0.04
3-OH-octadecadienoylcarn, C18:2-OH	<0.04	<0.06	<0.06
3-OH-octadecenoylcarnitine C18:1-OH	<0.03	<0.04	<0.06
3-OH-octadecanoylcarnitine, C18-OH	<0.03	<0.05	<0.03