

Reporting Title: Acylcarnitines, Quantitative, P

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: Green top (sodium heparin)

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

Submission Container/Tube: Plastic vial

Specimen Volume: 0.1 mL

Collection Instructions: Centrifuge and aliquot plasma into 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
Plasma	Frozen (preferred)	92 days	
	Refrigerated	64 days	
	Ambient	8 days	

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
82413	Acylcarnitines, Quantitative, P	Alphanumeric		46252-3
10288	Acetylcarnitine, C2	Numeric	nmol/mL	30191-1
10289	Propionylcarnitine, C3	Numeric	nmol/mL	30551-6
10290	Iso-/Butyrylcarnitine, C4	Numeric	nmol/mL	43243-5
10293	Isovaleryl-/2-Methylbutyrylcarn C5	Numeric	nmol/mL	30531-8
10295	Hexanoylcarnitine, C6	Numeric	nmol/mL	30358-6
10297	3-OH-hexanoylcarnitine, C6-OH	Numeric	nmol/mL	30236-4
10298	Octenoylcarnitine, C8:1	Numeric	nmol/mL	30541-7
10299	Octanoylcarnitine, C8	Numeric	nmol/mL	30540-9
10301	Decenoylcarnitine, C10:1	Numeric	nmol/mL	30328-9
10302	Decanoylcarnitine, C10	Numeric	nmol/mL	30327-1
10304	Glutaryl carnitine, C5-DC	Numeric	nmol/mL	30349-5
10305	Dodecenoylcarnitine, C12:1	Numeric	nmol/mL	30332-1
10306	Dodecanoylcarnitine, C12	Numeric	nmol/mL	30331-3
10307	3-OH-dodecanoylcarnitine, C12-OH	Numeric	nmol/mL	30233-1
10308	Tetradecadienoylcarnitine, C14:2	Numeric	nmol/mL	30564-9
10309	Tetradecenoylcarnitine, C14:1	Numeric	nmol/mL	30566-4

10310	Tetradecanoylcarnitine, C14	Numeric	nmol/mL	30565-6
10311	3-OH-tetradecenoylcarnitine C14:1OH	Numeric	nmol/mL	30190-3
10312	3-OH-tetradecanoylcarnitine, C14-OH	Numeric	nmol/mL	30238-0
10313	Hexadecenoylcarnitine, C16:1	Numeric	nmol/mL	30357-8
10314	Hexadecanoylcarnitine, C16	Numeric	nmol/mL	30356-0
10315	3-OH-hexadecenoylcarnitine,C16:1-OH	Numeric	nmol/mL	30235-6
10316	3-OH-hexadecanoylcarnitine, C16-OH	Numeric	nmol/mL	30234-9
10317	Octadecadienoylcarnitine, C18:2	Numeric	nmol/mL	30534-2
10318	Octadecenoylcarnitine, C18:1	Numeric	nmol/mL	30542-5
10319	Octadecanoylcarnitine, C18	Numeric	nmol/mL	30560-7
10320	3-OH-octadecadienoylcarn, C18:2-OH	Numeric	nmol/mL	30237-2
10321	3-OH-octadecenoylcarnitine C18:1-OH	Numeric	nmol/mL	30312-3
10322	Comment (ACRN)	Alphanumeric		48767-8
36497	Acrylylcarnitine, C3:1	Numeric	nmol/mL	43235-1
36498	Formiminoglutamate, FIGLU	Numeric	nmol/mL	79628-4
36499	Tiglylcarnitine, C5:1	Numeric	nmol/mL	51416-6
36500	3-OH-iso-/butyrylcarnitine, C4-OH	Numeric	nmol/mL	39000-5
36501	Hexenoylcarnitine, C6:1	Numeric	nmol/mL	74540-6
36502	3-OH-isovalerylcarnitine, C5-OH	Numeric	nmol/mL	39001-3
36503	Benzoylcarnitine	Numeric	nmol/mL	39615-0
36504	Heptanoylcarnitine, C7	Numeric	nmol/mL	55871-8
36505	Phenylacetylcarnitine	Numeric	nmol/mL	90237-9
36506	Salicylcarnitine	Numeric	nmol/mL	90238-7
36507	Malonylcarnitine, C3-DC	Numeric	nmol/mL	55940-1
36508	Decadienoylcarnitine, C10:2	Numeric	nmol/mL	53471-9
36509	Methylmalonyl-/succinylcarn, C4-DC	Numeric	nmol/mL	51415-8
36510	3-OH-decenoylcarnitine, C10:1-OH	Numeric	nmol/mL	82478-9
36511	3-Methylglutarylcarnitine, C6-DC	Numeric	nmol/mL	39002-1
36512	3-OH-dodecenoylcarnitine, C12:1-OH	Numeric	nmol/mL	59195-8
36513	Octanedioylcarnitine, C8-DC	Numeric	nmol/mL	39014-6
36514	Dodecanedioylcarnitine, C12-DC	Numeric	nmol/mL	55855-1
36515	3-OH-octadecanoylcarnitine, C18-OH	Numeric	nmol/mL	35656-8

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
Glutaryl carnitine, 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-Methylglutaryl carnitine, 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
Octanedioyl carnitine, 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