

Ordered By

Physician Name: Physician, Test

Reason for Referral: TEST

Patient Name: Test, Test

Accession #: R5001

Specimen #: X_5001B

Specimen: Blood

Birthdate: 08/05/2020

Age: 0

Gender: Male

MRN #: 08052020

Collected: 08/05/2020

Ethnicity:

Received: 08/05/2020

Acylcarnitine Analysis
RESULTS

ANALYTE	REFERENCE RANGE*	RESULT*	FLAG
Acetyl (C2)	0.070 - 10.910	7.523	
Propionyl (C3)	< 0.942	0.189	
Butyryl (C4)	< 0.435	0.127	
Pentenoyl (C5:1)	< 0.030	0.005	
Pentanoyl (C5)	< 0.171	0.155	
Hexanoyl (C6)	< 0.064	0.019	
Octenoyl (C8:1)	< 0.572	0.250	
Octanoyl (C8)	< 0.241	0.111	
Decadienoyl (C10:2)	< 0.090	0.024	
Decenoyl (C10:1)	< 0.302	0.082	
Decanoyl (C10)	< 0.379	0.143	
Dodecenoyl (C12:1)	< 0.175	0.131	
Dodecanoyl (C12)	< 0.128	0.128	
Tetradecadienoyl (C14:2)	< 0.103	0.039	
Tetradecenoyl (C14:1)	< 0.155	0.128	
Tetradecanoyl (C14)	< 0.055	0.081	H
Hexadecenoyl (C16:1)	< 0.106	0.080	

ANALYTE	REFERENCE RANGE*	RESULT*	FLAG
Hexadecanoyl (C16)	< 0.203	0.281	H
Octadecadienoyl (C18:2)	< 0.148	0.043	
Octadecenoyl (C18:1)	< 0.222	0.192	
Octadecanoyl (C18)	< 0.090	0.074	
Formiminoglutamate (FIGLU)	< 0.035	0.014	
Malonyl (C3:DC)	< 0.104	0.058	
Methylmalonyl/Succinyl (C4:DC)	< 0.076	0.037	
Glutaryl (C5:DC)	< 0.131	0.029	
3-Methylglutaryl (C6:DC)	< 0.306	0.162	
Hydroxybutyryl (C4:OH)	< 0.037	0.043	H
Hydroxypentanoyl (C5:OH)	< 0.080	0.016	
3-Hydroxydodecenoyl (C10:1OH)	< 0.115	0.050	
Hydroxytetradecanoyl (C14:OH)	< 0.015	0.018	H
Hydroxyhexadecenoyl (C16:1OH)	< 0.015	0.010	
Hydroxyhexadecanoyl (C16:OH)	< 0.019	0.022	H
Hydroxyoleyl (C18:1OH)	< 0.084	0.011	
Hydroxystearoyl (C18:OH)	< 0.015	0.009	

*Values in micromols/L

ASSAY INFORMATION

Method

Patient specimens are spiked with isotopic internal standards, deproteinized, derivatized using N-butanolic HCl and analyzed using flow injection electrospray ionization tandem mass spectrometry.

Limitations/Disclaimer

False negative results can occur in rare situations when diet, treatment or secondary carnitine depletion causes acylcarnitine levels to appear normal in an affected individual. In addition, in rare situations, false positive results can arise due to interference from competing isobaric compounds. These isobaric interferences can typically be clarified by completing concurrent urine organic acid analysis. Results are most informative when compared to the provided laboratory specific reference range.

This test was developed and its performance characteristics determined by Indiana University Biochemical Genetics Laboratory. It has not been cleared or approved by the U.S. Food and Drug Administration. This test is used for clinical purposes. It should not be regarded as investigational or for research. The laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA '88) as qualified to perform high complexity clinical laboratory testing. CLIA# 15D0647198 • CAP# 1678930

ELECTRONICALLY SIGNED BY

Marcus J. Miller, Director of the Biochemical Genetics Laboratory, 08/05/2020

Handwritten signature of Marcus J. Miller in black ink.

IU Genetic Testing Laboratories

975 W. Walnut St., IB 350 Indianapolis, IN 46202 • Phone: (317) 274-2243 • Fax: (317) 278-1616
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