

MAYO CLINIC
LABORATORIES

Medium-Chain Acyl-CoA Dehydrogenase (MCAD) Deficiency Full

Corp. Analysis, Varios Gene Analysis, Varies

Reporting Title: MCAD Deficiency, Full Gene Analysis

**Performing Location:** Rochester

# **Shipping Instructions:**

Specimen preferred to arrive within 96 hours of collection.

# Specimen Requirements:

Patient Preparation: A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710.

Submit only 1 of the following specimens:

Preferred:

Specimen Type: Whole blood

Container/Tube:

Preferred: Lavender top (EDTA) or vellow top (ACD)

Acceptable: Any anticoagulant Specimen Volume: 3 mL Collection Instructions:

1. Invert several times to mix blood.

2. Send whole blood specimen in original tube. Do not aliquot. Specimen Stability Information: Ambient (preferred)/Refrigerated

Specimen Type: Cultured fibroblasts Container/Tube: T-75 or T-25 flask

Specimen Volume: 1 Full T-75 or 2 full T-25 flasks

Specimen Stability Information: Ambient (preferred)/Refrigerated (<24 hours)

Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or

Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur.

Specimen Type: Skin biopsy

Container/Tube: Sterile container with any standard cell culture media (eg, minimal essential media, RPMI 1640). The solution should be supplemented with 1% penicillin and streptomycin. Tubes can be supplied upon request (Eagle's minimum essential medium with 1% penicillin and streptomycin [T115]).

Specimen Volume: 4-mm punch

Specimen Stability Information: Refrigerated (preferred)/Ambient

Additional Information: A separate culture charge will be assessed under CULFB / Fibroblast Culture for Biochemical or Molecular Testing. An additional 3 to 4 weeks is required to culture fibroblasts before genetic testing can occur.

Specimen Type: Blood spot

Supplies: Card - Blood Spot Collection (Filter Paper) (T493)

Container/Tube:

Preferred: Collection card (Whatman Protein Saver 903 Paper) Acceptable: Ahlstrom 226 filter paper or blood spot collection card

Specimen Volume: 2 to 5 Blood spots

Collection Instructions:

1. An alternative blood collection option for a patient older than 1 year is a fingerstick. For detailed instructions, see How



# **Test Definition: MCADZ**

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to Collect Dried Blood Spot Samples.

- 2. Let blood dry on the filter paper at ambient temperature in a horizontal position for a minimum of 3 hours.
- 3. Do not expose specimen to heat or direct sunlight.
- 4. Do not stack wet specimens.
- 5. Keep specimen dry

Specimen Stability Information: Ambient (preferred)/Refrigerated

Additional Information:

- 1. Due to lower concentration of DNA yielded from blood spot, it is possible that additional specimen may be required to complete testing.
- 2. For collection instructions, see Blood Spot Collection Instructions
- 3. For collection instructions in Spanish, see Blood Spot Collection Card-Spanish Instructions (T777)
- 4. For collection instructions in Chinese, see Blood Spot Collection Card-Chinese Instructions (T800)

### **Specimen Minimum Volume:**

Blood: 1 mL

Blood Spots: 5 punches, 3-mm diameter

All other specimen types: See Specimen Required

### Forms:

- 1. New York Clients-Informed consent is required. Document on the request form or electronic order that a copy is on file. The following documents are available:
- -Informed Consent for Genetic Testing (T576)
- -Informed Consent for Genetic Testing-Spanish (T826)
- 2. Molecular Genetics: Biochemical Disorders Patient Information (T527)

Specimen Type	Temperature	Time	Special Container		
Varies	Varies				

# Ask at Order Entry (AOE) Questions:

Test ID	Question ID	Description	Туре	Reportable
CULFB	CG770	Reason for Referral	Plain Text	No
CULFB	CG899	Specimen	Plain Text	No

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### **Result Codes:**

Result ID	Reporting Name	Туре	Unit	LOINC®
53971	Result Summary	Alphanumeric		50397-9
53972	Result	Alphanumeric		82939-0
53973	Interpretation	Alphanumeric		69047-9
53974	Additional Information	Alphanumeric		48767-8
53975	Specimen	Alphanumeric		31208-2
53976	Source	Alphanumeric		31208-2
53977	Released By	Alphanumeric		18771-6

LOINC and CPT codes are provided by the performing laboratory.

# **Supplemental Report:**

No

### **CPT Code Information:**

81479-Unlisted molecular pathology procedure 88233-Tissue culture, skin or solid tissue biopsy (if appropriate) 88240-Cryopreservation (if appropriate)

# **Reflex Tests:**

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
CULFB	Fibroblast Culture for Genetic Test			No	Yes

## **Result Codes for Reflex Tests:**

Test ID	Result ID	Reporting Name	Туре	Unit	LOINC®
CULFB	52327	Result Summary	Alphanumeric		50397-9
CULFB	52329	Interpretation	Alphanumeric		69965-2
CULFB	52328	Result	Alphanumeric		82939-0
CULFB	CG770	Reason for Referral	Alphanumeric		42349-1



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Test ID	Result ID	Reporting Name	Туре	Unit	LOINC®
CULFB	CG899	Specimen	Alphanumeric		31208-2
CULFB	52331	Source	Alphanumeric		31208-2
CULFB	52332	Method	Alphanumeric		85069-3
CULFB	54625	Additional Information	Alphanumeric		48767-8
CULFB	52333	Released By	Alphanumeric		18771-6

# **Reference Values:**

An interpretive report will be provided.