Please use only private shipping companies (UPS, FedEx, DHL, etc.) for all parcels containing specimens.

**PLEASE NOTE: THIS LABORATORY DOES NOT ACCEPT DELIVERIES ON WEEKENDS OR HOLIDAYS.**

For letters mailed via the United States Postal Service, please indicate ‘Attn: Clinical Laboratory, Mitochondrial Lab – Rm 0200’

Please check test required (below left) and complete all specimen and clinical information (below right and second page)

- Mitochondrial respiratory chain enzyme assays
  - available in muscle, liver, heart, and fibroblasts
- Blue native electrophoresis with in-gel mitochondrial enzyme analysis (I, II, IV, V)
  - available in muscle, liver, heart, and fibroblasts
- Complete mitochondrial enzyme analysis: combined order of quantitative enzyme assays and native electrophoresis with enzyme analysis
  - available in muscle, liver, heart, and fibroblasts
- Pyruvate dehydrogenase enzyme assay (fibroblast)
- Glycine cleavage enzyme (liver)

**Tissue Requirements:** tissue must be snap frozen, no preservative (no OCT), stored at −70° Celsius, and shipped overnight on dry ice. Autopsied samples must be obtained less than 4 hours after death.

**Muscle tissue:** Minimum volume required is 60 mg per assay, 150 mg for enzyme and electrophoresis.

**Liver tissue:** Minimum volume required is 20 mg. 100 mg for complete mitochondrial enzyme analysis. Samples > 60 mg will be performed with a regular assay. Samples of between 20 and 60 mg will require a microassay. Note that the reliability of the microassay is less robust than that of the regular assay.

**Heart tissue:** Minimum volume required is 20 mg. Electrophoresis requires additional 80 mg.

**Fibroblasts:** send room temperature (not frozen, no heated), min. 2 T25 flasks

**PLEASE NOTE: REFERRAL SOURCE IS RESPONSIBLE FOR PAYMENT.**
WE DO NOT BILL PATIENTS OR THEIR INSURANCE COMPANIES.

Online: www.DenverGenetics.org

Revised 6/2016
CLINICAL INFORMATION
Please check all that apply

General
O failure to thrive
O short stature

Brain
O microcephaly
O encephalopathy
O seizures:
  O myoclonic seizures
  O infantile
  O other seizures
O chorea
O dystonia
O parkinson
O ataxia
O neurodegeneration
O stroke-like episodes
O central apnea
O leukodystrophy
O other: __________________

Eye
O optic atrophy
O retinitis pigmentosa/retinal dystrophy
  O cataracts
  O ophthalmoplegia

Hearing
O nerve deafness
O hearing loss
O other

Endocrine
O diabetes mellitus
O hypoparathyroidism

Additional comments:
Previous mito investigations:

Kidney
O renal Fanconi
O glomerulosclerosis
O proteinuria – nephritic syndrome

Laboratory Studies
O Lactate:
  O Blood: _______ mM
  O CSF: _______ mM
  O lactate/pyruvate ratio: ______
O 3OHB/AcAc ratio: ______
O 3-methylglucatonic acid
O low total carnitine
O lactate on MRS
O elevated alanine: _____ µM
O incr. Krebs cycle metabolites
O other: ___________________

GI
O pancreatitis
O pancreatic insufficiency
O pseudo-obstruction
O malabsorption

Heart
O cardiomyopathy:
  O dilated
  O hypertrophic
O Conduction defect
O Arrhythmias

Skin
O hyperpigmentation

Muscle
O myopathy
O early fatigue
O abnormal exercise test
O rhabdomyolysis
O elevated CK: _____ U/L
O Biopsy:
  O ragged red fibers
  O abnormal e.m.

Recognized Syndromes
O Leigh disease
O Kearns-Sayre
O MELAS
O MERRF
O NARP
O MNGIE
O Diabetes-deafness
O Diabetes-retinitis pigmentosa
O CPEO

Print Physician Name: ___________________________________________________________
Physician Signature: ____________________________________________________________

FOR INTERNAL USE ONLY
Date Received: ______________________________  Patient Sample #: __________________

Online: www.DenverGenetics.org

Revised 6/2016
CLIENT INFORMATION

Complete this page to receive: A) Reports by Fax; B) Reports by Mail; C) Invoice by Mail

A) FAX: FAXED REPORTS to the names below:

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<thead>
<tr>
<th>Name/Title</th>
<th>Institution</th>
<th>Phone</th>
<th>Fax</th>
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Fax Date

B) Exact mailing address for REPORT

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