

PR 031551	<b>PROTOCOL FOR SENDING A FRESH MUSCLE BIOPSY MITOCHONDRIAL ENZYME DIAGNOSTICS</b>	PAGE: 1/2 VALID UNTIL 01-01-2024
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**Protocol for handling and shipping of a fresh muscle biopsy for biochemical examination of the mitochondrial oxidative phosphorylation. (ATP production- and substrate oxidation rates, respiratory chain enzymes, complex V, pyruvate dehydrogenase).**

### Contact

- Please contact the lab at least two weeks in advance to make an appointment for the analysis of a fresh muscle biopsy.
- On the day of the biopsy, please call our lab (tel. +31 24 361 4567) as soon as surgery has been completed and the biopsy has been shipped, in order to inform us that the sample has been shipped, so that the lab can start making the necessary preparations in order to receive the sample.

### Information about the patient

Please provide the following information together with the muscle biopsy:

- Name + date of birth
- Gender
- Registration number or reference number
- Physician
- Department / hospital
- Insurance information
- Medical indication
- Medication and specific feeding.

Use request form "Mitochondrial diagnostics", [see webpage LABGK](#)

### Instructions

#### **Materials**

- approx. 150 mg of muscle tissue (M. quadriceps)
- crushed, melting ice (0 – 4°C)
- SETH transportbuffer: Can be send on request. Please contact us, minimum 2 weeks in advance: phone +31 24 3619673, or by e-mail: [MitochondrieDiagnostiek-TML.labgk@radboudumc.nl](mailto:MitochondrieDiagnostiek-TML.labgk@radboudumc.nl)  
After arrival please store the SETH-buffer at -20 °C.  
Do not use the buffer after the expiration date.

#### **Procedure**

- Before use, thaw the buffer completely at 4°C and mix well before use.
- Immediately after collection, place the muscle biopsy in the vial with ice-cold SETH-buffer.
- The vial should be kept at approx. 0 - 4°C (melting ice) at all times.  
**DO NOT FREEZE and DO NOT KEEP AT ROOM TEMPERATURE.**
- Transport the vial in a cooler with a sufficient amount of crushed **melting** ice (0 – 4°C) to the address given below.
- Please also enclose all the relevant clinical and personal information about the patient.

For mitochondrial substrate oxidation rate and ATP production rate testing, it is imperative that the material to be tested is as fresh as possible. Therefore, please make sure that:

**>> The biopsy should be delivered in our laboratory within 3 hours after surgery <<**

### Turn around time

- The turn around time is two months.

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**Address**

The material should be sent by courier service to:  
Radboudumc.  
Radboud Center for Mitochondrial Medicine.  
Translational Metabolic Laboratory – Mitochondrial Enzyme diagnostics group.

815 Radboudumc Diagnostic Laboratory.  
Geert Grooteplein 10.  
6525 GA Nijmegen.  
The Netherlands.

**More information**

Should you require more information, please contact us as follows:

E-mail: [Richard.Rodenburg@raddboudumc.nl](mailto:Richard.Rodenburg@raddboudumc.nl)

Fax: +31 24 3668754

Phone: +31 24 3614567

Status of accreditation: see information in report of performed diagnostic analysis