

## Laboratory Genetic Metabolic Diseases

### Protocol for collection and pretreatment of blood/CSF samples for the determination lactate, pyruvate, acetoacetate and 3-hydroxybutyric acid

- Blood: collect a minimum of 0.5 ml of blood in a fluoride or EDTA tube on ice, mix well
- CSF: collect a minimum of 0.5 ml of CSF in a clean tube without additives on ice
- The samples should be deproteinized within 15 minutes after sampling
- Pipette 0.5 ml of blood / CSF in a conical tube of at least 10 ml
- Directly add an equal volume of 1.0 M perchloric acid to the sample
- Mix by gently tapping the tube (Do not vortex!)
- Place the mixture on ice for 10 minutes
- Centrifuge for 10 minutes at 4° C minimally 1700 x g
- Transfer the supernatant to a new tube
- Centrifuge again for 10 minutes at 4° C at 1700 x g
- If the supernatant is clear transfer it to a new tube suitable for transport; otherwise centrifuge again
- Store the sample at -20° C (-80° C if available) until shipment
- Send the frozen samples on sufficient dry ice to our laboratory by (international) courier together with a completed test request form Metabolite Diagnostics (available at [www.labgmd.nl](http://www.labgmd.nl)).