

Centre for Human Metabolomics (CHM)

Test:	Mitochondrial respiratory chain enzyme analyses (muscle)
Test Code:	6 x 4256 (6 enzymes) + 1 x 4117 (protein assay)
Tariff (including VAT):	R 8 721.90
Description:	Assay, quantification, and results interpretation for complexes I, II, II+III, III, IV and citrate synthase.
Turnaround time:	35-60 work days from receipt of sample at our laboratory
Transit stability / Sample viability:	Send muscle sample (preferably early in the week to prevent weekend delays) with courier service. The sample should be sent in a polystyrene box with sufficient dry ice (sample must be kept frozen at all times).
Comments:	Analysis cannot be performed on samples that have thawed at any time after collection. More than the mentioned size is not necessary, except if microscopy must be done (in which case this has to be arranged separately with the diagnostic laboratory that provides that service).
Sample required:	<ol style="list-style-type: none"> 1. A minimum of 100 mg skeletal muscle sample (preferably from <i>vastus lateralis</i>) is required (size: ± half the size of a ten cent coin). 2. The biopsy must be placed as is (without any addition) in a micro-centrifuge tube (e.g. 1.5ml polypropylene, preferably) or larger. Place tube on ice as soon as possible after it's been taken. 3. Freeze the tube with sample as soon as possible (not longer than 1 hour after collection) in liquid nitrogen or at -80°C. Store sample frozen at -80°C until it can be transported to our laboratory.
Method:	Spectrophotometry
Reference range & units:	Units will be provided in nmol/min/UCS (UCS = μmol/min citrate synthase activity). Information with regards to reference ranges will be provided with profile.
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Delivery address for samples:	URGENT: Muscle biopsy sample on dry ice. Center for Human Metabolomics (CHM), Sample reception (PLIEM/NBS/CRS) Building F3, Room Number G19, 11 Hoffmann street North West University, Potchefstroom, 2531