

Centre for Human Metabolomics (CHM)

Test:	Quantitative TMA (trimethylamine) URINE and Genotyping														
PLIEM Mnemonic:	PTMA														
NHRPL Tariff code:	4268 x 2 (Urine analysis) 4268 x 2 (DNA analysis)														
Tariff (including VAT):	R 8 884.00														
Description:	Assay, quantification and interpretation														
Turnaround time:	3 months (work days, excluding public holidays and weekends) for TMA urine analysis and genotyping of the FMO3 gene from receipt of sample(s) at our laboratory.														
Transit stability / Sample viability:	Urine samples: Keep frozen, send on dry ice. Viability: samples must reach our laboratory within 72 hours after loading assay was performed.														
	EDTA blood sample: Room temperature. Viability: samples must reach our laboratory within 72 hours after loading assay was performed.														
Comments:	1, NO preservatives should be added. 2. No random sample without TMA loading will be tested. 3. TMA loading samples required – protocol and other information available from our laboratory (ansie.mienie@nwu.ac.za).														
Samples required:	10 ml urine of each collection [see TMA loading protocol] AND 2-5 ml EDTA blood for genotyping (FMO3 gene analysis)														
Information Required with sample(s):	Absent clinical details may affect the interpretation of results and recommendations for further/additional testing (to assist with a differential diagnosis) cannot be made. 1. Clinical history of the patient. The referring clinician could complete and submit the clinical history on our website at https://pliem.co.za/test-request-form OR download the clinical history form from our website (same link) and email the completed form back to our laboratory at ansie.mienie@nwu.ac.za / pliem@nwu.ac.za . 2. Other significant medical reports for the patient (e.g. MRI brain, EEG, X-Ray reports, sonar reports, biopsy reports, genetic testing reports, etc). The referring clinician must please email these additional reports to ansie.mienie@nwu.ac.za . 3. Cumulative, routine pathology results of the patient (including archive results available) - this must be provided to our laboratory by the referring pathology laboratory. It could be e-mailed to pliem@nwu.ac.za OR send together with the sample(s) of the patient.														
Method:	G C M S and FMO3 gene sequencing														
Reference ranges & units:	Urine analysis (Following a normal diet.)														
	<table border="1"> <thead> <tr> <th>Group</th> <th>FMO3 metabolic capacity:</th> <th>TMA concentration</th> </tr> </thead> <tbody> <tr> <td>Severe cases</td> <td>< 43%</td> <td></td> </tr> <tr> <td>Moderate cases</td> <td>44-70%</td> <td></td> </tr> <tr> <td>Mild cases</td> <td>71-92 %</td> <td></td> </tr> <tr> <td>Unaffected individuals</td> <td>> 92%</td> <td>18-20mmol/mol creat</td> </tr> </tbody> </table> <p>[Reference: Michell and Smith et al., 2001; Mackay et al., 2011; Shimizu et al., 2013]</p>	Group	FMO3 metabolic capacity:	TMA concentration	Severe cases	< 43%		Moderate cases	44-70%		Mild cases	71-92 %		Unaffected individuals	> 92%
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Severe cases	< 43%														
Moderate cases	44-70%														
Mild cases	71-92 %														
Unaffected individuals	> 92%	18-20mmol/mol creat													
Contact for results & other enquiries:	Sample reception and resulting														
Telephone number:	018 299 2312 / 018 285 2652 (leave message)														
Fax number:	018 299 2316														
E-mail address:	pliem@nwu.ac.za														
Delivery address for samples:	Center for Human Metabolomics (CHM), Sample reception (PLIEM/NBS/CRS) Building F3, Room Number G19, 11 Hoffmann street North West University, Potchefstroom, 2531														