# Cystine

**NHRPL Tariff Code:**
4221 + 4321 + 4188 + 4194
**Tariff (Including VAT):**
R 2341.92*
* The listed tariff does not include logistical, collection and other services.
**Mnemonic:**
PAAu & PCULu (creat, u/acid, labstix) & CYS24u & CYS24hv
**Turnaround time:**
As a single test: 10 workdays from receipt of sample at NMP. As part of a screening panel: 15 workdays from receipt of sample at NMP.
**Method:**
Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

## Description

Above price includes the pre-analytical assessment of the sample (labstix, creatinine and uric acid) and subsequent analysis, quantification and interpretation. In addition to the 24-hour cystine, the results include all metabolites measured by the Quantitative Amino Acids (Urine) test.

## Comments

1. This test is utilised to rule in or exclude cystinuria resulting in kidney stones.
2. Total volume information for 24-hour period required for calculation of excretion per day.
3. N-acetylcysteine (ACC) intake may influence the result. Bacterial contamination, and protein excretion may result in a secondary reduced cystine concentration
4. Labstix, creatinine and uric acid included in all urine referrals.

## Information Required with sample(s):

Absent clinical details may affect the interpretation of results and recommendations for further/additional testing and subsequent diagnosis of a metabolic disorder.
Consent to use below information (point 4) is required according to POPIA regulation:
1. Clinical history of the patient. The referring clinician can complete the clinical history form by downloading it HERE and send it with the sample or email it to pliem@nwu.ac.za.
2. Other relevant medical reports (e.g. MRI brain, EEG, X-Ray reports, sonar reports, biopsy reports, genetic testing reports, etc) which may assist in the diagnosis of a metabolic disorder can be emailed to pliem@nwu.ac.za.
3. Cumulative, routine pathology results of the patient (including archive results available) – this must be provided and emailed to pliem@nwu.ac.za by the referring pathology laboratory.
4. Please complete the short consent form and also indicate if the patient/family would like to be contacted by our rare disease biobank.

## Sample requirements, viability, stability:

1. 10 ml urine - 24-hour sample collection: only send a 10 ml aliquot (please document the 24-hour urine volume excretion on accompanied documentation). Keep sample frozen and send on dry ice.
2. Sample should not be acidified, and no preservatives should be added. The former affects the LC-MS/MS base analysis
3. Viability: 12 months – kept frozen.