

Overview
Useful For

Detecting drug use involving amphetamines, barbiturates, cocaine, phencyclidine, and tetrahydrocannabinol

Reflex Tests

Test ID	Reporting Name	Available Separately	Always Performed
AMPHU	Amphetamines Confirmation, U	Yes	No
BARBU	Barbiturates Confirmation, U	Yes	No
COKEU	Cocaine and metabolite Conf, U	Yes	No
PCPU	Phencyclidine Confirmation, U	Yes	No
THCU	Carboxy-THC Confirmation, U	Yes	No

Testing Algorithm

Testing begins with screening tests for drugs of abuse including amphetamines, barbiturates, cocaine, phencyclidine, and tetrahydrocannabinol. Positives are confirmed and quantitated by definitive methods (gas chromatography-mass spectrometry for barbiturates, cocaine and metabolites, phencyclidine, and tetrahydrocannabinol metabolite) at an additional charge. Amphetamines that screen positive will be quantified with liquid chromatography-tandem mass spectrometry at an additional charge.

Method Name

Only orderable as part of profile. For more information see CSMP / Controlled Substance Monitoring Panel, Urine.

Screened by Immunoassay and Confirmed by Gas Chromatography-Mass Spectrometry (GC-MS) or Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

NY State Available

Yes

Specimen
Specimen Type

Urine

Advisory Information

The test does not screen for drug classes other than those listed above. More comprehensive screening is available using the serum or urine drug screens (DSS / Drug Screen, Prescription/OTC, Serum or PSDU / Drug Screen, Prescription/OTC, Urine).

Specimen Required

Only orderable as part of profile. For more information see CSMP / Controlled Substance Monitoring Panel, Urine.

Container/Tube: Plastic, 60-mL urine bottle

Specimen Volume: 30 mL

Collection Instructions:

1. Collect a random urine specimen.
2. No preservative

Specimen Minimum Volume

20 mL

Reject Due To

All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Urine	Refrigerated (preferred)	14 days	
	Frozen	14 days	
	Ambient	72 hours	

Clinical and Interpretive**Clinical Information**

This test uses the simple screening technique that involves immunologic testing for drugs by class. All positive immunoassay screening results are confirmed by gas chromatography-mass spectrometry (GC-MS) or liquid chromatography-tandem mass spectrometry (LC-MS/MS), and quantitated, before a positive result is reported.

This assay was designed to test for and confirm by GC/MS the following:

- Barbiturates
- Cocaine
- Phencyclidine
- Tetrahydrocannabinol

Confirmation by LC-MS/MS is completed for all amphetamines.

This test is intended to be used in a setting where the test results can be used to make a definitive diagnosis.

Reference Values

Only orderable as part of profile. For more information see CSMP / Controlled Substance Monitoring Panel, Urine.

Negative

Screening cutoff concentrations:

Amphetamines: 500 ng/mL

Barbiturates: 200 ng/mL

Cocaine (benzoylecgonine-cocaine metabolite): 150 ng/mL

Phencyclidine: 25 ng/mL

Tetrahydrocannabinol carboxylic acid: 50 ng/mL

This report is intended for use in clinical monitoring or management of patients. It is not intended for use in employment-related testing.

Interpretation

A positive result derived by this testing indicates that the patient has used 1 of the drugs detected by these techniques in the recent past. See individual tests (eg, AMPHU / Amphetamines Confirmation, Urine) for more information.

For information about drug testing, including estimated detection times, see Drugs of Abuse Testing at <https://www.mayocliniclabs.com/test-info/drug-book/index.html>

Cautions

This test is not intended for use in employment-related testing.

Clinical Reference

1. Physicians' Desk Reference: 60th edition. Montvale, NJ, Medical Economics Company, 2006
2. Goodman and Gilman's: The Pharmacological Basis of Therapeutics. 11th edition. Edited by LL Bruntman. New York, NY. McGraw-Hill Book Company, 2006
3. Langman LJ, Bechtel L, Holstege CP: Chapter 35. In Tietz Textbook of Clinical Chemistry and Molecular Diagnostics. Edited by CA Burtis, ER Ashwood, DE Bruns. WB Saunders Company. 2011, pp 1109-1188

Performance

Method Description

The amphetamines, barbiturates, cocaine, phencyclidine, and tetrahydrocannabinol metabolite assays are based on the kinetic interaction of microparticles in a solution (KIMS) as measured by changes in light transmission. In the absence of sample drug, soluble drug conjugates bind to antibody-bound microparticles, causing the formation of particle aggregates. As the aggregation reaction proceeds in the absence of sample drug, the absorbance increases. When a urine sample contains the drug in question, this drug competes with the drug derivative conjugate for microparticle-bound antibody. Antibody bound to sample drug is no longer available to promote particle aggregation, and subsequent particle lattice formation is inhibited. The presence of sample drug diminishes the increasing

absorbance in proportion to the concentration of drug in the sample. Sample drug content is determined relative to the value obtained for a known cutoff concentration of drug. (Package inserts: Roche Amphetamines 2019-03, Barbiturates 2017-11, Cannabinoids 2017-11, Cocaine 2017-11, Opiates 2017-11, Oxycodone 2018-01, Phencyclidine 2017-11, Methadone Metabolite reagents 2017-05, Roche Diagnostic Corp, Indianapolis, IN)

PDF Report

No

Day(s) and Time(s) Test Performed

Monday through Sunday

Analytic Time

Same day/1 day

Maximum Laboratory Time

2 days

Specimen Retention Time

14 days

Performing Laboratory Location

Rochester

Fees and Codes
Fees

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact [Customer Service](#).

Test Classification

This test has been cleared or approved by the U.S. Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information

80307

LOINC® Information

Test ID	Test Order Name	Order LOINC Value
PNRCH	Drug Immunoassay Panel, U	In Process

Result ID	Test Result Name	Result LOINC Value
2573	Amphetamines	16369-1
2574	Barbiturates	70155-7
21652	Cocaine	19360-7
2578	Phencyclidine	18392-1

Result ID	Test Result Name	Result LOINC Value
2664	Tetrahydrocannabinol	19416-7