Test Definition: LDPU

Limited Drug Profile, 3 Drug Classes, Immunoassay, Random, Urine

Overview

Useful For

Detecting drug use involving barbiturates, cocaine, and carboxy-tetrahydrocannabinol

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

Testing Algorithm

Testing begins with screening tests for drugs of abuse including barbiturates, cocaine, and tetrahydrocannabinol.

Positive results can be confirmed and quantitated by definitive methods, gas chromatography mass spectrometry for barbiturates, cocaine and metabolites and liquid chromatography tandem mass spectrometry for tetrahydrocannabinol metabolites, at an additional charge.

Method Name

Only orderable as part of profile. For more information see CSMHU / Controlled Substance Monitoring Hybrid Drug Profile, 20 Drug Classes, High-Resolution Mass Spectrometry and Immunoassay Screen, Random, Urine.

Immunoassay

NY State Available

Yes

Specimen

Specimen Type

Urine

Ordering Guidance

The test does not screen for drug classes other than those listed in Testing Algorithm.

Specimen Required

Only orderable as part of profile. For more information see CSMHU / Controlled Substance Monitoring Hybrid Drug Profile, 20 Drug Classes, High-Resolution Mass Spectrometry and Immunoassay Screen, Random, Urine.

Supplies: Urine Tubes, 10 mL (T068)
Collection Container/Tube: Plastic urine container
Submission Container/Tube: Plastic, 10 mL tube
Specimen Volume: 5 mL
Collection Instructions:

1. Collect a random urine specimen.
2. Submit 5 mL in 10 plastic tube.
3. No preservative

Specimen Minimum Volume
0.5 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	
	Ambient	72 hours	
	Frozen	14 days	

Clinical & Interpretive

Clinical Information
This test uses the simple screening technique that involves immunoassay testing for drugs by class. All positive immunoassay screening results can be confirmed by gas chromatography mass spectrometry or liquid chromatography tandem mass spectrometry and quantitated if applicable.

This assay was designed to test for the following:
-Barbiturates
-Cocaine
-Carboxy-tetrahydrocannabinol

Reference Values
Only orderable as part of profile. For more information see CSMHU / Controlled Substance Monitoring Hybrid Drug Profile, 20 Drug Classes, High-Resolution Mass Spectrometry and Immunoassay Screen, Random, Urine.

Negative
Screening cutoff concentrations:
Barbiturates: 200 ng/mL
Cocaine (benzoylecgonine-cocaine metabolite): 150 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

For information about drug testing, including estimated detection times, see Drug Class Testing on MayoClinicLabs.com.

Cautions
No significant cautionary statements

Clinical Reference
1. Physicians' Desk Reference. 60th ed. Medical Economics Company; 2006
2. Bruntman LL Lazo JS, Parker KL, eds. Goodman and Gilman's: The Pharmacological Basis of Therapeutics. 11th ed. McGraw-Hill Book Company; 2006
3. Langman LJ, Bechtel LK, Holstege CP. Clinical toxicology. In: Rifai N, Chiu RWK, Young I, Burnham CAD, Wittwer CT, eds. Tietz Textbook of Laboratory Medicine. 7th ed. Elsevier; 2023:chap 43
4. Jannetto PJ, Bratanow NC, Clark WA, et al. Executive summary: American Association of Clinical Chemistry Laboratory Medicine Practice Guideline-using clinical laboratory tests to monitor drug therapy in pain management patients. J Appl Lab Med. 2018;2(4):489-526

Performance

Method Description
The barbiturate, cocaine metabolite, and tetrahydrocannabinol metabolite assays are based on the kinetic interaction of microparticles in a solution 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: BARB. Roche Diagnostics; V 13.0, 09/2021; THC2. Roche Diagnostics; V 13.0, 03/2022; COC2. Roche Diagnostics; V 9.0, 03/2019)

PDF Report
No

Day(s) Performed
Monday through Saturday

Report Available
Same day/1 to 2 days

Specimen Retention Time
14 days

Performing Laboratory Location
Mayo Clinic Laboratories - Rochester Superior Drive

Fees & 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 account representative. For assistance, contact Customer Service.

Test Classification

This test has been cleared, approved, or is exempt by the US 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
LDPU	Limited Drug Panel, 3, IA, U	69739-1

Result ID	Test Result Name	Result LOINC® Value
615289	Barbiturates	19270-8
615290	Cocaine	19359-9
615291	Tetrahydrocannabinol	19415-9