Test Definition: CDAU

Confirmed Drug Abuse Panel, U

Overview

Useful For

Detecting drug abuse involving amphetamines, barbiturates, benzodiazepines, cocaine, ethanol, marijuana, opiates, and phencyclidine

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

Reflex Tests

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

Testing Algorithm

Testing begins with screening assays. If alcohol (ethanol) screen is positive, then the gas chromatography-flame ionization detector confirmation with quantification will be performed at an additional charge. If barbiturates, benzodiazepines, cocaine and metabolites, phencyclidine, or tetrahydrocannabinol metabolite screen is positive, then the gas chromatography-mass spectrometry (GC-MS) confirmation with quantification will be performed at an additional charge. Amphetamines and opiates that screen positive will be quantified with liquid chromatography-tandem mass spectrometry (LC-MS/MS) at an additional charge.

Method Name

CDAU: Alcohol Screened by an Enzymatic Assay/All Others Screened by Immunoassay

ETOH: Gas Chromatography-Mass Spectrophotometry (GC-MS)

NY State Available

Yes

Specimen

Specimen Type

Urine

Ordering Guidance

For situations where chain of custody is required, a Chain of Custody Kit (T282) is available. For chain-of-custody information, see CDAUX / Drug Abuse Panel with Confirmation, Chain of Custody, Urine.

Additional Testing Requirements

If urine creatinine is required or adulteration of the sample is suspected, the following test should be requested, ADULT / Adulterants Survey, Urine.

Specimen Required

Supplies: Urine Container, 60 mL (T313)

Collection Container/Tube: Plastic urine container

Submission Container/Tube: Plastic, 60-mL urine container (T313)

Specimen Volume: 30 mL

Collection Instructions:

1. Collect a random urine specimen.

2. Submit 30 mL in 1 plastic container.

3. No preservative.

Additional Information:

1. No specimen substitutions.

2. Additional drug panels and specific requests are available. Call 800-533-1710 or 507-266-5700.

3. Submitting less than 30 mL will compromise our ability to perform all necessary testing.

Forms

If not ordering electronically, complete, print, and send a Therapeutics Test Request (T831) with the specimen.

Specimen Minimum Volume

15 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)	7 days	

Specimen Type	Temperature	Time	Special Container
	Frozen	14 days	

Clinical and Interpretive

Clinical Information

This assay was designed to screen by immunoassay and confirm by gas chromatography-mass spectrometry (GC-MS), gas chromatography-flame ionization detection (GC-FID), or liquid chromatography-tandem mass spectrometry (LC-MS/MS) for the following drugs:

-Amphetamines

-Barbiturates

-Benzodiazepines

-Cocaine

-Ethanol

-Opiates

-Phencyclidine

-Tetrahydrocannabinol

This assay represents the coupling of an immunoassay screen with an automatic confirmation of all positive results by the definitive assay available and described in each individual reflex test ID (eg, AMPHU / Amphetamines Confirmation, Urine). All positive screening results are confirmed by GC-MS, GC-FID, or LC-MS/MS and quantitated before a positive result is reported.

Reference Values

Negative

Screening cutoff concentrations

Amphetamines: 500 ng/mL

Barbiturates: 200 ng/mL

Benzodiazepines: 100 ng/mL

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

Ethanol: 10 mg/dL

Opiates: 300 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 indicates that the patient has used the drugs detected 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

Not intended for use in employment-related testing.

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 PDSU / Drug Screen, Prescription/OTC, Urine).

Clinical Reference

1. Physician's Desk Reference (PDR). 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, 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, benzodiazepines, cocaine, opiates, 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.

ADH

Ethyl alcohol + NAD+ ----------> acetaldehyde + NADH + H+

PDF Report

No

Day(s) Performed

Monday through Saturday

Report Available

Same day/1 to 2 days

Specimen Retention Time

2 weeks

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, 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
CDAU	Confirmed Drug Abuse Panel, U	87428-9

Result ID	Test Result Name	Result LOINC Value
30909	Alcohol	34180-0
2573	Amphetamines	43983-6
2574	Barbiturates	70155-7
2575	Benzodiazepines	16195-0
21652	Cocaine	19359-9
2577	Opiates	18390-5
2578	Phencyclidine	18392-1
2664	Tetrahydrocannabinol	19415-9
20672	Chain of Custody	77202-0