Test Definition: CDAUX

Confirmed Drug Abuse Panel, CoC, 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.

Chain of custody is required whenever the results of testing could be used in a court of law. Its purpose is to protect the rights of the individual contributing the specimen by demonstrating that it was under the control of personnel involved with testing the specimen at all times; this control implies that the opportunity for specimen tampering would be limited.

Reflex Tests

Test ID	Reporting Name	Available Separately	Always Performed
AMPHX	Amphetamines Confirmation, CoC, U	Yes	No
OPATX	Opiate Confirmation, CoC, U	Yes	No
BARBX	Barbiturates Confirmation, CoC, U	Yes	No
COKEX	Cocaine and metabolite Conf, CoC, U	Yes	No
ETOHX	Ethanol, CoC, U	Yes	No
PCPX	Phencyclidine Confirmation, CoC, U	Yes	No
THCX	Carboxy-THC Confirmation, CoC, U	Yes	No
BNZX	Benzodiazepines Conf, CoC, U	Yes	No

Additional Tests

Test ID	Reporting Name	Available Separately	Always Performed
COCH	Chain of Custody Processing	No	Yes
ADLTX	Adulterants Survey, CoC, U	Yes	Yes

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 amphetamines, barbiturates, benzodiazepines, cocaine and metabolites, opiates, phencyclidine, or tetrahydrocannabinol metabolite screen is positive, then the gas chromatography-mass spectrometry 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 at an additional charge.

Adulterants testing will be performed on all chain of custody urine samples as per regulatory requirements.

Method Name

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

NY State Available

Yes

Specimen

Specimen Type

Urine

Specimen Required

Container/Tube: Chain-of-Custody Kit (T282) containing the specimen containers, seals, and documentation required

Specimen Volume: 30 mL

Collection Instructions: Collect specimen in the container provided, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing.

Additional Information: Submitting less than 30 mL will compromise our ability to perform all necessary testing.

Forms

1. Chain-of-Custody Request is included in the Chain-of-Custody Kit (T282).

2. 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	
	Frozen	14 days	

Clinical and Interpretive

Clinical Information

This assay was designed to screen for 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

Chain of custody is a record of the disposition of a specimen to document who collected it, who handled it, and who performed the analysis. When a specimen is submitted in this manner, analysis will be performed in such a way that it will withstand regular court scrutiny.

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, AMPHX / Amphetamines Confirmation, Chain of Custody, 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 (DSSX / Drug Screen, Prescription/OTC, Chain of Custody, Serum or PDSUX / Drug Screen, Prescription/OTC, Chain of Custody, Urine).

Clinical Reference

1. Physicians 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+

The NADH formed during the reaction, measured photometrically as a rate of change in absorbance, is directly proportional to the ethyl alcohol concentration.(Package insert: Roche Amphetamines, Barbiturates, Cannabinoids, Benzodiazepines, Cocaine, Ethanol, Opiates, Phencyclidine, Methadone Metabolite reagents, Roche Diagnostic Corp, Indianapolis, IN)

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
CDAUX	Confirmed Drug Abuse Panel, CoC, U	87428-9

Result ID	Test Result Name	Result LOINC Value
36262	Alcohol	42242-8
36253	Amphetamines	43983-6
36258	Barbiturates	70155-7
36259	Benzodiazepines	14316-4
36254	Cocaine	43984-4
36255	Opiates	70151-6
36256	Phencyclidine	14310-7
36257	Tetrahydrocannabinol	14312-3
36261	Chain of Custody	77202-0