MAYO CLINIC LABORATORIES

Test Definition: ADLTX

Adulterants Survey, Chain of Custody, Random, Urine

Overview

Useful For

Assess the possible adulteration of a urine specimen submitted for drug of abuse testing

Providing the urine creatinine concentration for normalization purposes

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 always under the control of personnel involved with testing the specimen; this control implies that the opportunity for specimen tampering would be limited.

Additional Tests

Test Id	Reporting Name	Available Separately	Always Performed
COCH	Chain of Custody Processing	No	Yes

Testing Algorithm

For information see Adulterant Survey Algorithm.

Special Instructions

- Adulterant Survey Algorithm

Method Name

Spectrophotometry (SP)

NY State Available

Yes

Specimen

Specimen Type

Urine

Ordering Guidance

This test is for situations that require the chain-of-custody process. For testing **not** requiring chain of custody, order ADULT / Adulterants Survey, Random, Urine

Specimen Required

Supplies: Chain of Custody Kit (T282)

Container/Tube: Chain-of-custody kit containing the specimen containers, seals, and documentation required.
Specimen Volume: 1.5 mL
Collection Instructions: Collect a random specimen without preservative in the provided container, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing.
Additional Information: Submitting less than 1.5 mL will compromise the 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

1 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

Specimen adulteration is the manipulation of a sample that may cause false-negative test results for the presence of drugs of abuse. Common adulterants that may affect testing are water, soap, bleach, vinegar, oxidants, and salt. Adulteration testing includes assessment of creatinine concentration, pH, urine specific gravity, presence or absence of an oxidant, and presence or absence of nitrite.

Chain of custody is a record of the disposition of a specimen to document the individuals who collected the specimen, handled it, and 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

Cutoff concentrations
Oxidants: 200 mg/L
Nitrites: 500 mg/L

Interpretation

For information see Adulterant Survey Algorithm.

Cautions

No significant cautionary statements

Clinical Reference

1. US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA). Mandatory Guidelines for Federal Workplace Drug Testing Programs. Federal Register. 2017 January 23;82(13):FR 7920. Accessed June 8, 2026. Available at //www.federalregister.gov/documents/2023/10/12/2023-21734/mandatory-guidelines-for-federal-workplace-drug-testing-programs
2. US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA). Drug-Free Workplace: Employer Resources. Updated May 11, 2026. Accessed June 8, 2026. Available at www.samhsa.gov/substance-use/drug-free-workplace/employer-resources

Performance

Method Description

All results are measured using spectrophotometry at wavelengths specified by the reagent manufacturer. The use of a refractometer may also be used in the specific gravity measurement.(Package inserts: Specimen Validity Test Creatinine. Roche Diagnostics; V 3.0, 05/2023; Specimen Validity Test Nitrite. Roche Diagnostics; V 2.0, 05/2022, Specimen Validity Test Oxidant. Roche Diagnostics; V 2.0, 05/2022; Specimen Validity Test pH Roche Diagnostics; V 2.0, 05/2022, Specimen Validity Test Specific Gravity. Roche Diagnostics; V 3.0, 08/2022)

PDF Report

No

Day(s) Performed

Monday through Saturday

Report Available

2 to 3 days

Specimen Retention Time

2 weeks

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.

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
ADLTX	Adulterants Survey, CoC, U	58715-4

Result ID	Test Result Name	Result LOINC® Value
36121	Creatinine, U	2161-8
36122	Specific Gravity	5810-7
36123	pH	2756-5
36124	Oxidants	58714-7
36125	Nitrites	32710-6
36126	Comment	48767-8