MAYO CLINIC LABORATORIES

Test Definition: BARBU

Barbiturates Confirmation, Random, Urine

Overview

Useful For

Detecting drug abuse involving barbiturates such as amobarbital, butalbital, pentobarbital, phenobarbital, and secobarbital

Special Instructions

- Clinical Toxicology CPT Code Client Guidance

Method Name

Gas Chromatography Mass Spectrometry (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 testing, order BARBX / Barbiturates Confirmation, Chain of Custody, Random, Urine.

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

Additional Testing Requirements

If urine creatinine is required or adulteration of the sample is suspected, also order ADULT / Adulterants Survey, Random, Urine in addition to this test.

Specimen Required

Supplies: Urine Tubes, 10 mL (T068)
Collection Container/Tube: Plastic urine container
Submission Container/Tube: Plastic, 10-mL urine tube
Specimen Volume: 10 mL
Collection Instructions:
1. Collect a random urine specimen.
2. No preservative.

Additional Information:
1. No specimen substitutions.
2. STAT requests are **not accepted** for this test.

Forms

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

Specimen Minimum Volume

5 mL

Reject Due To

Gross hemolysis	OK
Gross icterus	OK

Specimen Stability Information

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

Clinical & Interpretive

Clinical Information

Barbiturates represent a class of drugs that were originally introduced as sleep inducers. Butalbital is also used to control severe headaches. Mephobarbital and phenobarbital are frequently used to control major motor (grand mal) seizures. These drugs are commonly abused as "downers" to induce sleep after an amphetamine- or cocaine-induced "high."

Reference Values

Negative (Positive results are reported with a quantitative result)

Cutoff concentrations by gas chromatography mass spectrometry:
Butalbital: 100 ng/mL

Amobarbital: 100 ng/mL

Pentobarbital: 100 ng/mL

Secobarbital: 100 ng/mL

Phenobarbital: 100 ng/mL

Interpretation

The presence of a barbiturate in urine indicates use of one of these drugs.

Most of the barbiturates are fast acting; their presence indicates use within the past 3 days.

Phenobarbital, commonly used to control epilepsy, has a very long half-life. The presence of phenobarbital in urine indicates that the patient has used the drug sometime within the past 30 days.

Cautions
No significant cautionary statements.

Clinical Reference
1. Baselt RC. Disposition of Toxic Drugs and Chemicals in Man. 10th ed. Biomedical Publications; 2014
2. 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

Performance

Method Description
Gas chromatography mass spectrometry confirmation with quantitation.(Unpublished Mayo method)

PDF Report
No

Day(s) Performed
Monday, Wednesday, Friday

Report Available
3 to 5 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 was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information
G0480
80345 (if appropriate for select payers)

Clinical Toxicology CPT Code Client Guidance

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
BARBU	Barbiturates Confirmation, U	53746-4

Result ID	Test Result Name	Result LOINC® Value
21442	Butalbital-by GC/MS	16237-0
20642	Amobarbital-by GC/MS	16239-6
20643	Pentobarbital-by GC/MS	16240-4
20644	Secobarbital-by GC/MS	16238-8
20645	Phenobarbital-by GC/MS	16241-2
20651	Barbiturates Interpretation	69050-3
20647	Chain of Custody	77202-0