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**Overview****Useful For**

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

**Method Name**

Gas Chromatography-Mass Spectrometry (GC-MS) Confirmation with Quantitation

**NY State Available**

Yes

**Specimen****Specimen Type**

Urine

**Advisory Information**

1. 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.

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

3. If urine creatinine is required or adulteration of the sample is suspected, order ADULT / Adulterants Survey, Random, Urine.

**Specimen Required**

**Supplies:** Urine Tubes, 10 mL (T068)

**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. STATS 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	
	Frozen	14 days	
	Ambient	72 hours	

**Clinical and 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

Cutoff concentrations:

BUTALBITAL BY GC-MS

&lt;100 ng/mL

AMOBARBITAL BY GC-MS

&lt;100 ng/mL

PENTOBARBITAL BY GC-MS

&lt;100 ng/mL

SECOBARBITAL BY GC-MS

&lt;100 ng/mL

PHENOBARBITAL BY GC-MS

&lt;100 ng/mL

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## 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. Disposition of Toxic Drugs and Chemicals in Man. 10th edition. Edited by RC Baselt. Foster City, CA: Biomedical Publications, 2014

2. Langman LJ et al: Clinical Toxicology. In Tietz Textbook of Clinical Chemistry and Molecular Diagnostics. Edited by N Rifai, AR Horvath, CT Wittwer. Sixth edition. Elsevier, 2018, pp 832-887

## Performance

### Method Description

Gas chromatography-mass spectrometry confirmation with quantitation.(Porter WH, Moyer TP: Clinical toxicology. In Tietz Textbook of Clinical Chemistry. Second edition. Edited by CA Burtis, ER Ashwood. WB Saunders Company, 1994, pp 1162-1167)

### PDF Report

No

### Day(s) and Time(s) Test Performed

Monday, Wednesday, Friday; Varies

### Analytic Time

2 days

### Maximum Laboratory Time

6 days

### 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 was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with

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CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

**CPT Code Information**

80345

G0480 (if appropriate)

**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	18385-5
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