

**Reporting Title:** Controlled Substance Monitoring, U**Performing Location:** Mayo Clinic Laboratories - Rochester Superior Drive**Ordering Guidance:**

The test does not screen for drug classes other than those listed in Reference Values.

**Specimen Requirements:****Supplies:** Urine Container, 60 mL (T313)**Collection Container/Tube:** Plastic urine container**Submission Container/Tube:** Plastic, 60-mL urine container**Specimen Volume:** 30 mL**Collection Instructions:**

1. Collect a random urine specimen.
2. Submit 30 mL in 1 plastic bottle.
3. No preservative.

**Additional Information:**

1. No specimen substitutions.
2. Submitting less than 30 mL may compromise the ability to perform all necessary testing.
3. STAT requests are **not accepted** for this test.

**Forms:**If not ordering electronically, complete, print, and send [Therapeutics Test Request](#) (T831) with the specimen.

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

**Ask at Order Entry (AOE) Questions:**

Test ID	Question ID	Description	Type	Reportable
LPCM	LPCM	List patient's current medications	Plain Text	Yes

**Result Codes:**

Result ID	Reporting Name	Type	Unit	LOINC®
20606	Creatinine, U	Numeric	mg/dL	2161-8
22312	Specific Gravity	Numeric		In Process
23509	pH	Numeric		2756-5
23511	Oxidants	Alphanumeric		58714-7
23510	Nitrites	Alphanumeric		32710-6
30914	Comment	Alphanumeric		48767-8
42323	Codeine	Alphanumeric	ng/mL	19411-8
42324	Codeine-6-beta-glucuronide	Alphanumeric	ng/mL	89310-7

42325	Morphine	Alphanumeric	ng/mL	19597-4
42326	Morphine-6-beta-glucuronide	Alphanumeric	ng/mL	89308-1
42327	6-monoacetylmorphine	Alphanumeric	ng/mL	19321-9
42328	Hydrocodone	Alphanumeric	ng/mL	19482-9
42329	Norhydrocodone	Alphanumeric	ng/mL	89304-0
42330	Dihydrocodeine	Alphanumeric	ng/mL	19446-4
42331	Hydromorphone	Alphanumeric	ng/mL	19486-0
42332	Hydromorphone-3-beta-glucuronide	Alphanumeric	ng/mL	89309-9
42333	Oxycodone	Alphanumeric	ng/mL	19642-8
42334	Noroxycodone	Alphanumeric	ng/mL	89303-2
42335	Oxymorphone	Alphanumeric	ng/mL	19646-9
42336	Oxymorphone-3-beta-glucuronide	Alphanumeric	ng/mL	89301-6
42337	Noroxymorphone	Alphanumeric	ng/mL	89302-4
42338	Fentanyl	Alphanumeric	ng/mL	59673-4
42339	Norfentanyl	Alphanumeric	ng/mL	43199-9
42340	Meperidine	Alphanumeric	ng/mL	19532-1
42341	Normeperidine	Alphanumeric	ng/mL	27920-8
42342	Naloxone	Alphanumeric	ng/mL	42618-9
42343	Naloxone-3-beta-glucuronide	Alphanumeric	ng/mL	89307-3
42344	Methadone	Alphanumeric	ng/mL	19550-3
42345	EDDP	Alphanumeric	ng/mL	93495-0
42346	Propoxyphene	Alphanumeric	ng/mL	19429-0
42347	Norpropoxyphene	Alphanumeric	ng/mL	19632-9
42348	Tramadol	Alphanumeric	ng/mL	19710-3
42349	O-desmethyltramadol	Alphanumeric	ng/mL	86453-8
42350	Tapentadol	Alphanumeric	ng/mL	72485-6
42351	N-desmethyltapentadol	Alphanumeric	ng/mL	89306-5
42352	Tapentadol-beta-glucuronide	Alphanumeric	ng/mL	89300-8
42353	Buprenorphine	Alphanumeric	ng/mL	93494-3
42354	Norbuprenorphine	Alphanumeric	ng/mL	82371-6
42355	Norbuprenorphine glucuronide	Alphanumeric	ng/mL	89305-7
65059	Opioid Interpretation	Alphanumeric		69050-3
2574	Barbiturates	Alphanumeric	ng/mL	70155-7
21652	Cocaine	Alphanumeric	ng/mL	19359-9
2664	Tetrahydrocannabinol	Alphanumeric	ng/mL	19415-9
604871	Alprazolam	Alphanumeric	ng/mL	94116-1
604867	Alpha-Hydroxyalprazolam	Alphanumeric	ng/mL	19325-0
604891	Alpha-Hydroxyalprazolam Glucuronide	Alphanumeric	ng/mL	94115-3
604872	Chlordiazepoxide	Alphanumeric	ng/mL	19385-4
604889	Clobazam	Alphanumeric	ng/mL	94114-6
604890	N-Desmethylclobazam	Alphanumeric	ng/mL	94113-8
604873	Clonazepam	Alphanumeric	ng/mL	19399-5

604267	7-aminoclonazepam	Alphanumeric	ng/mL	94112-0
604874	Diazepam	Alphanumeric	ng/mL	19443-1
604880	Nordiazepam	Alphanumeric	ng/mL	19624-6
604875	Flunitrazepam	Alphanumeric	ng/mL	19466-2
604866	7-aminoflunitrazepam	Alphanumeric	ng/mL	94111-2
604876	Flurazepam	Alphanumeric	ng/mL	19474-6
604868	2-Hydroxy Ethyl Flurazepam	Alphanumeric	ng/mL	94110-4
604877	Lorazepam	Alphanumeric	ng/mL	19520-6
604878	Lorazepam Glucuronide	Alphanumeric	ng/mL	94109-6
604879	Midazolam	Alphanumeric	ng/mL	19585-9
604869	Alpha-Hydroxy Midazolam	Alphanumeric	ng/mL	94108-8
604881	Oxazepam	Alphanumeric	ng/mL	19638-6
604882	Oxazepam Glucuronide	Alphanumeric	ng/mL	94107-0
604883	Prazepam	Alphanumeric	ng/mL	19678-2
604884	Temazepam	Alphanumeric	ng/mL	19698-0
604885	Temazepam Glucuronide	Alphanumeric	ng/mL	94106-2
604886	Triazolam	Alphanumeric	ng/mL	19714-5
604870	Alpha-Hydroxy Triazolam	Alphanumeric	ng/mL	94105-4
604887	Zolpidem	Alphanumeric	ng/mL	94104-7
604888	Zolpidem Phenyl-4-Carboxylic acid	Alphanumeric	ng/mL	94103-9
604949	Benzodiazepine Interpretation	Alphanumeric		69050-3
LPCM	List Patient's Current Medications	Alphanumeric		66423-5
610273	Methamphetamine	Alphanumeric	ng/mL	19554-5
610274	Amphetamine	Alphanumeric	ng/mL	19343-3
610275	3,4-methylenedioxyamphetamine (MDMA)	Alphanumeric	ng/mL	19568-5
610276	3,4-methylenedioxy-N-ethylamphetamine (MDEA)	Alphanumeric	ng/mL	59844-1
610277	3,4-methylenedioxyamphetamine (MDA)	Alphanumeric	ng/mL	19565-1
610278	Ephedrine	Alphanumeric	ng/mL	99108-3
610279	Pseudoephedrine	Alphanumeric	ng/mL	99109-1
610280	Phentermine	Alphanumeric	ng/mL	19674-1
610281	Phencyclidine (PCP)	Alphanumeric	ng/mL	19659-2
610282	Methylphenidate	Alphanumeric	ng/mL	19577-6
610283	Ritalinic acid	Alphanumeric	ng/mL	99110-9
610284	Stimulant Interpretation	Alphanumeric		54247-2

LOINC® and CPT codes are provided by the performing laboratory.

### Supplemental Report:

No

### Components:

Test Id	Reporting Name	CPT Units	CPT Code	Always Performed	Available Separately
LPCM	List Patient's Current Medications			Yes	No
ADULT	Adulterants Survey, U			Yes	Yes
PNRCH	Drug Immunoassay Panel, U	1	80307	Yes	No
TOPSU	Targeted Opioid Screen, U	1	G0481	Yes	Yes, (Order TOSU)
TABSU	Targeted Benzodiazepine Screen, U	icology CPT Code Client Guidance	G0480	Yes	Yes, (Order TBSU)
TSTIM	Targeted Stimulant Screen, U	icology CPT Code Client Guidance	G0480	Yes	Yes, (Order TSPU)

### CPT Code Information:

80307

G0482

80347 (if appropriate for select payers)

80364 (if appropriate for select payers)

80326 (if appropriate for select payers)

[Clinical Toxicology CPT Code Client Guidance](#)

### Reflex Tests:

Test Id	Reporting Name	CPT Units	CPT Code	Always Performed	Available Separately
COKEU	Cocaine and metabolite Conf, U	1	G0480	No	Yes
BARBU	Barbiturates Confirmation, U	1	G0480	No	Yes
THCU	Carboxy-THC Confirmation, U	1	G0480	No	Yes

### Result Codes for Reflex Tests:

Test ID	Result ID	Reporting Name	Type	Unit	LOINC®
BARBU	21442	Butalbital-by GC/MS	Alphanumeric	ng/mL	16237-0
BARBU	20642	Amobarbital-by GC/MS	Alphanumeric	ng/mL	16239-6
BARBU	20643	Pentobarbital-by GC/MS	Alphanumeric	ng/mL	16240-4
BARBU	20644	Secobarbital-by GC/MS	Alphanumeric	ng/mL	16238-8
BARBU	20645	Phenobarbital-by GC/MS	Alphanumeric	ng/mL	16241-2
BARBU	20651	Barbiturates Interpretation	Alphanumeric		69050-3
BARBU	20647	Chain of Custody	Alphanumeric		77202-0
COKEU	2922	Cocaine-by GC/MS	Alphanumeric	ng/mL	20519-5
COKEU	2902	Benzoylcegonine-by GC/MS	Alphanumeric	ng/mL	16226-3
COKEU	20671	Cocaine Interpretation	Alphanumeric		69050-3

COKEU	28080	Chain of Custody	Alphanumeric		77202-0
THCU	2497	Delta-9 Carboxy-Tetrahydrocannabinol by LC-MS/MS	Alphanumeric	ng/mL	20521-1
THCU	21186	Carboxy-THC Interpretation	Alphanumeric		69050-3
THCU	618770	Delta-8 Carboxy-Tetrahydrocannabinol by LC-MS/MS	Alphanumeric	ng/mL	101249-1

**Reference Values:**

**ADULTERANT SURVEY:**

Cutoff concentrations

Oxidants: 200 mg/L

Nitrites: 500 mg/L

**DRUG IMMUNOASSAY PANEL:**

Negative

Screening cutoff concentrations:

Barbiturates: 200 ng/mL

Cocaine (benzoylecgonine-cocaine metabolite): 150 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.

**TARGETED OPIOID SCREEN:**

Not detected (Positive results are reported with qualitative "Present" results)

Cutoff concentrations:

Codeine: 25 ng/mL

Codeine-6-beta-glucuronide: 100 ng/mL

Morphine: 25 ng/mL

Morphine-6-beta-glucuronide: 100 ng/mL

6-Monoacetylmorphine: 25 ng/mL

Hydrocodone: 25 ng/mL

Norhydrocodone: 25 ng/mL

Dihydrocodeine: 25 ng/mL

Hydromorphone: 25 ng/mL

Hydromorphone-3-beta-glucuronide: 100 ng/mL

Oxycodone: 25 ng/mL

Noroxycodone: 25 ng/mL

Oxymorphone: 25 ng/mL

Oxymorphone-3-beta-glucuronide: 100 ng/mL

Noroxymorphone: 25 ng/mL

Fentanyl: 2 ng/mL

Norfentanyl: 2 ng/mL

Meperidine: 25 ng/mL

Normeperidine: 25 ng/mL

Naloxone: 25 ng/mL

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Naloxone-3-beta-glucuronide: 100 ng/mL  
Methadone: 25 ng/mL  
2-Ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine (EDDP): 25 ng/mL  
Propoxyphene: 25 ng/mL  
Norpropoxyphene: 25 ng/mL  
Tramadol: 25 ng/mL  
O-desmethyltramadol: 25 ng/mL  
Tapentadol: 25 ng/mL  
N-desmethyltapentadol: 50 ng/mL  
Tapentadol-beta-glucuronide: 100 ng/mL  
Buprenorphine: 5 ng/mL  
Norbuprenorphine: 5 ng/mL  
Norbuprenorphine glucuronide: 20 ng/mL

**TARGETED BENZODIAZEPINE SCREEN:**

Not detected (Positive results are reported with qualitative "Present" results)

**Cutoff concentrations:**

Alprazolam: 10 ng/mL  
Alpha-hydroxyalprazolam: 10 ng/mL  
Alpha-hydroxyalprazolam glucuronide: 50 ng/mL  
Chlordiazepoxide: 10 ng/mL  
Clobazam: 10 ng/mL  
N-desmethyloclobazam: 200 ng/mL  
Clonazepam: 10 ng/mL  
7-Aminoclonazepam: 10 ng/mL  
Diazepam: 10 ng/mL  
Nordiazepam: 10 ng/mL  
Flunitrazepam: 10 ng/mL  
7-Aminoflunitrazepam: 10 ng/mL  
Flurazepam: 10 ng/mL  
2-Hydroxy ethyl flurazepam: 10 ng/mL  
Lorazepam: 10 ng/mL  
Lorazepam glucuronide: 50 ng/mL  
Midazolam: 10 ng/mL  
Alpha-hydroxymidazolam: 10 ng/mL  
Oxazepam: 10 ng/mL  
Oxazepam glucuronide: 50 ng/mL  
Prazepam: 10 ng/mL  
Temazepam: 10 ng/mL  
Temazepam glucuronide: 50 ng/mL  
Triazolam: 10 ng/mL  
Alpha-hydroxytriazolam: 10 ng/mL  
Zolpidem: 10 ng/mL

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Zolpidem phenyl-4-carboxylic acid: 10 ng/mL

**TARGETED STIMULANT SCREEN:**

Not detected (Positive results are reported with qualitative "Present" results)

**Cutoff concentrations:**

Methamphetamine: 100 ng/mL

Amphetamine: 100 ng/mL

3,4-Methylenedioxymethamphetamine (MDMA): 100 ng/mL

3,4-Methylenedioxy-N-ethylamphetamine (MDEA): 100 ng/mL

3,4-Methylenedioxyamphetamine (MDA): 100 ng/mL

Ephedrine: 100 ng/mL

Pseudoephedrine: 100 ng/mL

Phentermine: 100 ng/mL

Phencyclidine (PCP): 20 ng/mL

Methylphenidate: 20 ng/mL

Ritalinic acid: 100 ng/mL