

## Affiliated Laboratory, Inc. --- Urine Drug Screen Reference

Drug Screen (Positive Cutoff)	Drug (Trade Names)	Urine Detection Window	Urine Drug Screen Comment CR = Cross reactivity, Eq = Equivalent	Recommendations for quantitative urine confirmation testing performed by LC-MSMS or GC-MSMS
<b>Opiates (300 ng/mL)</b>	Morphine (MS-Contin and various other preparations), Codeine (various other preparations), Hydrocodone (Vicodin and various other preparations), Hydromorphone (Dilaudid and various other preparations), Heroin	1-3 days	<ul style="list-style-type: none"> <li>• Detects Morphine, Codeine, 6-Acetyl Morphine well               <ul style="list-style-type: none"> <li>➢ Morphine: 100% CR, 300 ng/mL</li> <li>➢ Codeine: 134% CR, 224 ng/mL Eq</li> <li>➢ 6-Acetyl Morphine: 78% CR, 386 ng/mL Eq – this is a metabolite specific to heroin.</li> </ul> </li> <li>• Lower sensitivity for Hydrocodone and Hydromorphone               <ul style="list-style-type: none"> <li>➢ Hydrocodone: 28% CR, 1,086 ng/mL Eq</li> <li>➢ Hydromorphone: 21% CR, 1,425 ng/mL Eq</li> </ul> </li> </ul> <p><b>Does not detect Oxycodone, Methadone, Meperidine, Buprenorphine, Tramadol, Tapentadol or Fentanyl</b></p>	<p>Opiates Confirmation --- Use ALI Test Code <b>OPIATES</b>.</p> <ul style="list-style-type: none"> <li>• Identifies and quantitates Morphine, Codeine, Oxycodone, Oxymorphone, Hydrocodone, Hydromorphone, 6-AM (6 acetyl morphine) using a 20 ng/mL cutoff.</li> </ul> <p>Buprenorphine Confirmation --- Use ARUP code <b>BUPR UR</b></p> <ul style="list-style-type: none"> <li>• Identifies and quantitates Buprenorphine and Norbuprenorphine using a 2 ng/mL cutoff, glucuronide metabolites using a 5 ng/mL cutoff, and Naloxone using a 100 ng/mL cutoff.</li> </ul> <p>Fentanyl Confirmation --- Use ARUP code <b>CDCO FENU</b></p> <ul style="list-style-type: none"> <li>• Identifies and quantitates Fentanyl and Norfentanyl using a 1 ng/mL cutoff.</li> </ul> <p>Meperidine Confirmation --- Use ARUP code <b>3000248</b></p> <ul style="list-style-type: none"> <li>• Identifies and quantitates Meperidine and Normeperidine using a 40 ng/mL cutoff.</li> </ul> <p>Tramadol Confirmation --- Use ARUP code <b>TRAMAD UR</b></p> <ul style="list-style-type: none"> <li>• Identifies and quantitates Tramadol and O-desmethyltramadol using a 25 ng/mL cutoff.</li> </ul> <p><b>Additional Confirmation Tests are available upon request, please consult with the laboratory.</b></p>
<b>Oxycodone / Oxymorphone (100 ng/mL)</b>	Oxycodone (Oxycontin, Percocet, Percodan) Oxymorphone (Numorphan, Opana)	1-3 days	<ul style="list-style-type: none"> <li>• Detects Oxycodone and Oxymorphone               <ul style="list-style-type: none"> <li>➢ Oxycodone: 100% CR, 100 ng/mL</li> <li>➢ Oxymorphone: 103% CR, 97 ng/mL</li> </ul> </li> <li>• Does not show cross reactivity with other Opiates</li> </ul>	
<b>Buprenorphine (10 ng/mL)</b>	Cizdol, Subutex, Suboxone, Temgesic, Buprenex, Norspan, Butrans	1-7 days	<ul style="list-style-type: none"> <li>• Detects Buprenorphine and Buprenorphine-3-β-D Glucuronide               <ul style="list-style-type: none"> <li>➢ Buprenorphine: 100 CR, 10 ng/mL</li> <li>➢ Buprenorphine-3-β-D Glucuronide: 98% CR, ~11 ng/mL</li> </ul> </li> </ul>	
<b>Fentanyl (2 ng/mL)</b>	Sublimaze (IV admin.) Duragesic (transdermal patch) Actiq (transmucosal lozenge)	1-3 days	<ul style="list-style-type: none"> <li>• Detects Fentanyl, with some sensitivity to Fentanyl analogs               <ul style="list-style-type: none"> <li>➢ Fentanyl: 100% CR, 2 ng/mL</li> <li>➢ Carfentanil: 33.3% CR, 6 ng/mL</li> </ul> </li> </ul>	
<b>Amphetamines (500 ng/mL)</b>	Amphetamine (Adderall, Benzedrine, Dexedrine, Vyvanse) Methamphetamine (Desoxyn, Methedrine, Vicks inhaler) MDA, MDMA (Ecstasy), Selegiline, Speed)	1-4 days	<ul style="list-style-type: none"> <li>• Detects Amphetamines and Methamphetamines               <ul style="list-style-type: none"> <li>➢ d-Methamphetamine: 100% CR, 500 ng/mL</li> <li>➢ d-Amphetamine: 100% CR, 500 ng/mL Eq</li> <li>➢ MDA: 36% CR, 1400 ng/mL</li> <li>➢ MDMA: 62% CR, 800 ng/mL Eq</li> <li>➢ MDEA: nothing stated in package insert</li> </ul> </li> </ul> <p><b>Does not detect Methylphenidate (Ritalin), Ephedrine, Pseudoephedrine, or Phentermine</b></p>	<p>Amphetamines Confirmation --- Use ARUP code <b>AMPS UR</b></p> <ul style="list-style-type: none"> <li>• Identifies and quantitates Amphetamine, Methamphetamine, Phentermine, MDA, MDMA and MDEA using a cutoff of 200 ng/mL for all, except Amphetamine cutoff is 50 ng/mL.</li> </ul> <p>Methylphenidate Confirmation --- Use ALI test code <b>METHPHENUR</b></p> <ul style="list-style-type: none"> <li>• Identifies and quantitates Methylphenidate using a 10 ng/mL cutoff and Ritalinic Acid using a 100 ng/mL cutoff.</li> </ul>
<b>Barbiturates (200 ng/mL)</b>	Amobarbital (Amytal) Butobarbital (Butisol) Pentobarbital (Nembutal) Phenobarbital (Luminal) Secobarbital (Seconal)	1-6 days	<ul style="list-style-type: none"> <li>• Sensitivity depends on the type of Barbiturate               <ul style="list-style-type: none"> <li>➢ Secobarbital: 100% CR, 200 ng/mL</li> <li>➢ Butalbital: 71% CR, 281 ng/mL Eq</li> <li>➢ Pentobarbital: 36% CR, 561 ng/mL Eq</li> <li>➢ Amobarbital: 29% CR, 702 ng/mL Eq</li> <li>➢ Phenobarbital: 22% CR, 925 ng/mL Eq</li> </ul> </li> </ul>	<p>Barbiturates Confirmation --- Use ARUP code <b>BARB UR</b></p> <ul style="list-style-type: none"> <li>• Identifies and quantitates Secobarbital, Butalbital, Amobarbital, Pentobarbital, and Phenobarbital using a cutoff of 50 ng/mL.</li> </ul>
<b>Benzodiazepines (300 ng/mL)</b>	Alprazolam (Xanax) Clonazepam (Klonopin) Diazepam (Valium) Lorazepam (Ativan) Oxazepam (Serax)	1-2 days (short acting)  1-4 days (intermediate acting)  1-7+ days (long acting)	<ul style="list-style-type: none"> <li>• Detects a variety of Benzodiazepines (not a complete list):               <ul style="list-style-type: none"> <li>➢ Nordiazepam: 100% CR, 300 ng/mL</li> <li>➢ Diazepam: 88% CR, 340 ng/mL Eq</li> <li>➢ Alprazolam: 89% CR, 338 ng/mL Eq</li> <li>➢ Oxazepam: 75% CR, 398 ng/mL Eq</li> <li>➢ Rohypnol (Flunitrazepam): 71% CR, 424 ng/mL Eq</li> <li>➢ Clonazepam: 67% CR, 445 ng/mL Eq</li> <li>➢ Midazolam: 64% CR, 467 ng/mL Eq</li> <li>➢ Lorazepam: 62% CR, 487 ng/mL Eq .</li> </ul> </li> </ul> <p><b>Does not detect Gamma-hydroxybutyrate (GHB)</b></p>	<p>Benzodiazepines Confirmation --- Use ALI test code <b>BENZOS</b></p> <ul style="list-style-type: none"> <li>• Identifies and quantitates Alprazolam, Alpha-hydroxyalprazolam, Clonazepam, 7-aminoclonazepam, Desalkylflurazepam, Diazepam, Alpha-hydroxyethylflurazepam, Lorazepam, Nordiazepam, Oxazepam, Temazepam, and Alpha-hydroxytriazolam using a 20 ng/mL cutoff.</li> </ul>

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<b>Cocaine Metabolite (300 ng/mL)</b>	Cocaine	1-2 days	<ul style="list-style-type: none"> <li>• Detects Benzoylcegonine, a metabolite of cocaine: 100% CR at 300 ng/mL <ul style="list-style-type: none"> <li>➢ Cocaine is rapidly metabolized / excreted by the kidneys; therefore assays rely on detection of its metabolite.</li> </ul> </li> </ul>	Cocaine Metabolite Confirmation --- Use ARUP code <b>CDCO COCA</b> <ul style="list-style-type: none"> <li>• Identifies and quantitates Benzoylcegonine using a cutoff of 50 ng/mL.</li> </ul>
<b>Methadone metabolite (EDDP) (300 ng/mL)</b>	Methadone (Dolophine, Methadose)	1-3 days	<ul style="list-style-type: none"> <li>• Detects EDDP, a metabolite of Methadone: 100% CR at 300 ng/mL</li> </ul>	Methadone Confirmation --- Use ARUP code <b>CDCO METH</b> <ul style="list-style-type: none"> <li>• Identifies and quantitates Methadone and EDDP (metabolite) using a 10ng/mL cutoff.</li> </ul>
<b>THC (Cannabinoids) (50 ng/mL)</b>	9-carboxy-THC, Cannabis, Cannabinoids, Dronabinol, Marijuana, Marinol, THC	<1-30+ days, depending upon usage	<ul style="list-style-type: none"> <li>• Detects the major THC metabolite Δ9 COOH-THC: 100%CR at 50 ng/mL. Other metabolites may be detected with lesser sensitivity.</li> </ul>	THC metabolite confirmation --- Use ARUP code <b>CDCO THC</b> <ul style="list-style-type: none"> <li>• Identifies and quantitates 11-Nor-9-carboxy-THC using a 5 ng/mL cutoff.</li> </ul>
<b>Acetone (10 mg/dL)</b>	Acetone, nail polish remover, may be seen in diabetic ketoacidosis (DKA), or as a metabolite of isopropanol	Not well-established	<ul style="list-style-type: none"> <li>• Detects acetone by Gas Chromatography</li> </ul> <p>The presence of acetone may indicate exposure to acetone; it is also a metabolite of isopropanol and may be present with ketoacidosis.</p>	Verification with serum/plasma level is recommended if acute poisoning is suspected; use ALI code <b>ACETONE</b> . If more than one volatile is detected, and confirmation and level are indicated, use ALI code <b>VOLATILES</b> .
<b>Ethanol (10 mg/dL)</b>	Ethanol, ethyl alcohol, alcohol, spirits	10-12 hours, depending upon amount ingested  Up to 3 days (applicable to Ethyl Glucuronide and Ethyl Sulfate testing)	<ul style="list-style-type: none"> <li>• Detects ethanol by Gas Chromatography</li> </ul> <p>The presence of ethanol indicates exposure which may result in intoxication, CNS depression, and metabolic acidosis.</p>	Confirmation of a positive urine ethanol result is not typically necessary if the result is expected.  Verification with serum/plasma level is recommended if acute poisoning is suspected; use ALI code <b>ETOH</b> . If more than one volatile is detected and confirmation and levels are indicated, use ALI code <b>VOLATILES</b> .  For follow-up testing of a presumptive result or assessment of ethanol exposure in the contexts of compliance and/or abuse, Ethyl Glucuronide and Ethyl Sulfate, Urine, Quantitative ARUP code <b>2007909</b> is recommended. Results do not accurately correlate with amount or frequency of ethanol use.
<b>Isopropanol (10 mg/dL)</b>	Isopropanol, isopropyl alcohol, rubbing alcohol	Not well-established	<ul style="list-style-type: none"> <li>• Detects isopropanol by Gas Chromatography</li> </ul> <p>The presence of isopropanol indicates exposure which may result in intoxication and CNS depression. Ingestion of isopropanol can be fatal if patients do not receive immediate medical treatment.</p>	Verification with serum/plasma level is recommended if acute poisoning is suspected; use ALI code <b>ISOPRO</b> . If more than one volatile is detected and confirmation and levels are indicated, use ALI code <b>VOLATILES</b> .
<b>Methanol (10 mg/dL)</b>	Methanol, methyl alcohol, wood alcohol	Not well-established	<ul style="list-style-type: none"> <li>• Detects methanol by Gas Chromatography</li> </ul> <p>The presence of methanol indicates exposure which may result in intoxication, central nervous system (CNS) depression, and metabolic acidosis. Ingestion of methanol can be fatal if patients do not receive immediate medical treatment.</p>	Verification with serum/plasma level is recommended if acute poisoning is suspected; use ALI code <b>METH</b> . If more than one volatile is detected and confirmation and levels are indicated, use ALI code <b>VOLATILES</b> .