

Immunoassay Urine Drug Screen Reference

Last Update April 2, 2021

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
Opiates (300 ng/mL)	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"> • Detects Morphine, Codeine, 6-Acetyl Morphine well <ul style="list-style-type: none"> ➢ Morphine: 100% CR, 300 ng/mL ➢ Codeine: 134% CR, 224 ng/mL Eq ➢ 6-Acetyl Morphine: 78% CR, 386 ng/mL Eq – this is a metabolite specific to heroin. • Lower sensitivity for Hydrocodone and Hydromorphone <ul style="list-style-type: none"> ➢ Hydrocodone: 28% CR, 1,086 ng/mL Eq ➢ Hydromorphone: 21% CR, 1,425 ng/mL Eq <p>Does not detect Oxycodone, Methadone, Meperidine, Buprenorphine, Tramadol, Tapentadol or Fentanyl</p>	<p>Opiates/Opioids Confirmation --- Use Test Code CDCO OPI</p> <ul style="list-style-type: none"> • Identifies and quantitates Morphine, Codeine, Oxycodone, Oxymorphone, Hydrocodone, Hydromorphone, Norhydrocodone, Noroxycodone, and Noroxymorphone using a 20 ng/mL positive cutoff; 6-AM (6-acetyl-morphine) uses a 10 ng/mL positive cutoff. <p>Buprenorphine Confirmation --- Use Test Code BUPR UR</p> <ul style="list-style-type: none"> • Identifies and quantitates Buprenorphine and Norbuprenorphine using a 2 ng/mL positive cutoff; glucuronide metabolites use a 5 ng/mL positive cutoff, and Naloxone uses a 100 ng/mL positive cutoff.
Oxycodone / Oxymorphone (100 ng/mL)	Oxycodone (Oxycontin, Percocet, Percodan) Oxymorphone (Numorphan, Opana)	1-3 days	<ul style="list-style-type: none"> • Detects Oxycodone and Oxymorphone <ul style="list-style-type: none"> ➢ Oxycodone: 100% CR, 100 ng/mL ➢ Oxymorphone: 103% CR, 97 ng/mL • Does not show cross reactivity with other Opiates 	<p>Fentanyl Confirmation --- Use Test Code CDCO FENU</p> <ul style="list-style-type: none"> • Identifies and quantitates Fentanyl and Norfentanyl using a 1 ng/mL positive cutoff. <p>Meperidine Confirmation --- Use <u>ARUP code 3000248</u></p> <ul style="list-style-type: none"> • Identifies and quantitates Meperidine and Normeperidine using a 40 ng/mL positive cutoff. <p>Tramadol Confirmation --- Use Test Code TRAMAD UR</p> <ul style="list-style-type: none"> • Identifies and quantitates Tramadol and O-desmethyiltramadol using a 25 ng/mL positive cutoff.
Buprenorphine (10 ng/mL)	Cizdol, Subutex, Suboxone, Temgesic, Buprenex, Norspan, Butrans	1-7 days	<ul style="list-style-type: none"> • Detects Buprenorphine and Buprenorphine-3-β-D Glucuronide <ul style="list-style-type: none"> ➢ Buprenorphine: 100 CR, 10 ng/mL ➢ Buprenorphine-3-β-D Glucuronide: 98% CR, ~11 ng/mL 	<p>Tramadol Confirmation --- Use Test Code TRAMAD UR</p> <ul style="list-style-type: none"> • Identifies and quantitates Tramadol and O-desmethyiltramadol using a 25 ng/mL positive cutoff.
Fentanyl (2 ng/mL)	Sublimaze (IV admin.) Duragesic (transdermal patch) Actiq (transmucosal lozenge)	1-3 days	<ul style="list-style-type: none"> • Detects Fentanyl, with some sensitivity to Fentanyl analogs <ul style="list-style-type: none"> ➢ Fentanyl: 100% CR, 2 ng/mL ➢ Carfentanil: 33.3% CR, 6 ng/mL 	<p>Additional Confirmation Tests are available upon request, please consult with the laboratory.</p>
Amphetamines (500 ng/mL)	Amphetamine (Adderall, Benzedrine, Dexedrine, Vyvanse) Methamphetamine (Desoxyn, Methedrine, Vicks inhaler) MDA, MDMA (Ecstasy), Selegeline, Speed)	1-4 days	<ul style="list-style-type: none"> • Detects Amphetamines and Methamphetamines <ul style="list-style-type: none"> ➢ d-Methamphetamine: 102% CR, 488 ng/mL ➢ d-Amphetamine: 101% CR, 494 ng/mL Eq ➢ MDA: 127% CR, 394 ng/mL Eq ➢ MDMA: 255% CR, 196 ng/mL Eq ➢ MDEA: 75% CR, 668 ng/mL Eq <p>Does not detect Methylphenidate (Ritalin), Ephedrine, Pseudoephedrine, or Phentermine</p>	<p>Amphetamines Confirmation --- Use Test Code AMPS UR</p> <ul style="list-style-type: none"> • Identifies and quantitates Methamphetamine, Phentermine, MDA, MDMA and MDEA using a 200 ng/mL positive cutoff; Amphetamine uses a 50 ng/mL positive cutoff. <p>Methylphenidate Confirmation --- Use Test Code METHPHENUR</p> <ul style="list-style-type: none"> • Identifies and quantitates Methylphenidate using a 10 ng/mL positive cutoff and Ritalinic Acid using a 50 ng/mL positive cutoff.
Barbiturates (200 ng/mL)	Amobarbital (Amytal) Butobarbital (Butisol) Pentobarbital (Nembutal) Phenobarbital (Luminal) Secobarbital (Seconal)	1-6 days	<ul style="list-style-type: none"> • Sensitivity depends on the type of Barbiturate <ul style="list-style-type: none"> ➢ Secobarbital: 100% CR, 200 ng/mL ➢ Butalbital: 71% CR, 281 ng/mL Eq ➢ Pentobarbital: 36% CR, 561 ng/mL Eq ➢ Amobarbital: 29% CR, 702 ng/mL Eq ➢ Phenobarbital: 22% CR, 925 ng/mL Eq 	<p>Barbiturates Confirmation --- Use Test Code BARB UR</p> <ul style="list-style-type: none"> • Identifies and quantitates Secobarbital, Butalbital, Amobarbital, Pentobarbital, and Phenobarbital using a 50 ng/mL positive cutoff.

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Benzodiazepines (300 ng/mL)	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"> • Detects a variety of Benzodiazepines (not a complete list): <ul style="list-style-type: none"> ➢ Nordiazepam: 100% CR, 300 ng/mL ➢ Diazepam: 88% CR, 340 ng/mL Eq ➢ Alprazolam: 89% CR, 338 ng/mL Eq ➢ Oxazepam: 75% CR, 398 ng/mL Eq ➢ Rohypnol (Flunitrazepam): 71% CR, 424 ng/mL Eq ➢ Clonazepam: 67% CR, 445 ng/mL Eq ➢ Midazolam: 64% CR, 467 ng/mL Eq ➢ Lorazepam: 62% CR, 487 ng/mL Eq <p>Does not detect Gamma-hydroxybutyrate (GHB)</p>	Benzodiazepines Confirmation --- Use Test Code CDCO BENZO <ul style="list-style-type: none"> • Identifies and quantitates Alprazolam, Alpha-hydroxyalprazolam, Clonazepam, and 7-aminoclonazepam using a 5 ng/mL positive cutoff; Chlordiazepoxide, Diazepam, Lorazepam, Midazolam, Alpha-hydroxymidazolam, Nordiazepam, Oxazepam, and Temazepam use a 20 ng/mL positive cutoff.
Cocaine Metabolite (300 ng/mL)	Cocaine	1-2 days	<ul style="list-style-type: none"> • Detects Benzoylcegonine, a metabolite of cocaine: 100% CR at 300 ng/mL <ul style="list-style-type: none"> ➢ Cocaine is rapidly metabolized / excreted by the kidneys; therefore, assays rely on detection of its metabolite. 	Cocaine Metabolite Confirmation --- Use Test Code CDCO COCA <ul style="list-style-type: none"> • Identifies and quantitates Benzoylcegonine using a 50 ng/mL positive cutoff.
Methadone metabolite (EDDP) (300 ng/mL)	Methadone (Dolophine, Methadose)	1-3 days	<ul style="list-style-type: none"> • Detects EDDP, a metabolite of Methadone: 100% CR at 300 ng/mL 	Methadone Confirmation --- Use Test Code CDCO METH <ul style="list-style-type: none"> • Identifies and quantitates Methadone and EDDP (metabolite) using a 10 ng/mL positive cutoff.
THC (Cannabinoids) (50 ng/mL)	9-carboxy-THC, Cannabis, Cannabinoids, Dronabinol, Marijuana, Marinol, THC	<1-30+ days, depending upon usage	<ul style="list-style-type: none"> • Detects the major THC metabolite Δ9 COOH-THC: 100% CR at 50 ng/mL. Other metabolites may be detected with lesser sensitivity. 	THC metabolite confirmation --- Use Test Code CDCO THC <ul style="list-style-type: none"> • Identifies and quantitates 11-Nor-9-carboxy-THC using a 15 ng/mL positive cutoff.
Ethanol (10 mg/dL)	Ethanol, ethyl alcohol, alcohol, spirits	10-12 hours, depending upon amount ingested 1 to 5 days (applicable to Ethyl Glucuronide and Ethyl Sulfate testing)	<ul style="list-style-type: none"> • Detects ethanol by Enzymatic methodology <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 Blood Level is recommended if acute poisoning or intoxication is suspected; use Test Code ETOH . If acute ingestion of volatiles is suspected, recommend blood levels, use Test Code VOLATILES which includes quantitative result for ethanol, isopropanol, methanol, and acetone by Gas Chromatography. Ethyl Glucuronide Screen with Reflex to Confirmation, Urine --- Use Test Code ETG SCR <ul style="list-style-type: none"> • Useful for general screening in the assessment of ethanol exposure in the contexts of compliance and/or abuse. Ethyl glucuronide is a direct metabolite of ethanol and can be detected up to 80 hours in urine after ethanol ingestion. The cutoff for positive by immunoassay is set at 500 ng/mL. A positive result will be confirmed by liquid chromatography tandem mass spectrometry (LC-MS/MS). Results do not accurately correlate with amount or frequency of ethanol use.