

Immunoassay Urine Drug Screen Reference

Last Update August 19, 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), Selegiline, 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.

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
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 . Isopropanol and methanol requests are forwarded to NorDx Laboratory, Scarborough. 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.