

Drugs Detected by Liquid Chromatography-High Resolution Mass Spectrometry

| 27-Nov-24 | Assay Limit of | | |
|---|----------------------------|---|--|
| Drug Metabolite or Preparation Ingredient | Detection (LOD) (ng/mL) | Assay Interpretation Notes | *Detection Time in Urine |
| Anesthetic | | | |
| Ketamine | 10 | Ketamine detected after use | 3 d |
| Anticonvulsant and Analgesic | | | |
| Gabapentin | 1 | Gabapentin detected after use | 4 d |
| Pregabalin | 100 | Pregabalin detected after use | 4 d |
| Antidepressants | | | |
| Bupropion | 1 | Bupropion detected after use | |
| m-CPP | 10 | Major metabolite of trazodone, nefazodone, mepiprazole and abilify; designer drug; Ecstasy | |
| Antipsychotics | | | |
| Clozapine | 10 | Metabolized to norclozapine; both may be detected after use | 6d |
| Norclozapine | 10 | Clozapine metabolite | |
| Olanzapine | 10 | Olanzapine detected after use | 4d |
| Quetiapine | 1 | Quetiapine detected after use | 4d |
| Benzodiazepines - Short Acting | | | |
| Triazolam | 10 | Triazolam detected after use | |
| Flurazepam | 100 | Metabolized to desalkylflurazepam; metabolite primarily detected after use | |
| Desalkylflurazepam | 10 | Flurazepam metabolite | |
| Benzodiazepines - Intermediate Acting | | | |
| Clonazepam | 10 | Metabolized to 7-aminoclonazepam; metabolite primarily detected after use | |
| 7-Aminoclonazepam | 10 | Clonazepam metabolite | |
| Lorazepam | 10 | Lorazepam detected after use | |
| Temazepam | 10 | Metabolized to oxazepam; both may be detect after use; diazepam metabolite | |
| Alprazolam | 10 | Metabolized to alpha-hydroxyalprazolam; both may be detected after use | |
| Hydroxyalprazolam | 100 | Alprazolam metabolite | |
| Flunitrazepam | 1 | Metabolized to 7-aminoflunitrazepam; metabolite primarily detected after use | |
| 7-Aminoflunitrazepam | 1 | Flunitrazepam metabolite | |
| Oxazepam | 10 | Oxazepam detected after use; nordiazepam and temazepam metabolite | |
| Benzodiazepines - Long Acting | | | |
| Diazepam | 10 | Metabolized to nordiazepam, temazepam and oxazepam; all may be detected after use | 30 d |
| Nordiazepam | 10 | Diazepam metabolite | 2 - 21 d |
| Nitrazepam | 10 | Metabolized to 7-aminonitrazepam; both may be detected after use | 6-24 d |
| 7-Aminonitrazepam | 10 | Nitrazepam metabolite | |
| Phenazepam | 1 | Phenazepam detected after use | |
| Cannabinoids | | | |
| THC-COOH (THCA) | 1000 | Major cannabinoid metabolite | 3-4 d (single use); 1-5 d (regular use); 10-60 d (chronic use) |
| THC-COO-Glucuronide | 100 | Major cannabinoid metabolite conjugate | |
| THC | 1000 | Primary psychoactive component of marijuana. Poorly detected in urine. | 1-3 d (casual use); 30-36 d (chronic use) |
| Opioids and Related Drug Preparation Ingredients | | | |
| Buprenorphine | 10 | Metabolized to norbuprenorphine; both may be detected after use; Suboxone and Buprenorphine/Naloxone preparations also include naloxone | 4-7 d |
| Buprenorphine-glucuronide | 25 | Buprenorphine metabolite | |
| Norbuprenorphine | 1 | Buprenorphine metabolite | 7 d |
| Norbuprenorphine-glucuronide | 25 | Norbuprenorphine metabolite | |
| Codeine | 10 | Metabolized to norcodeine, morphine and hydrocodone; all may be detected after use | 1-4 d |
| Fentanyl | 10 | Metabolized to norfentanyl; both may be detected after use | 1-3 d |
| Norfentanyl | 1 | Fentanyl metabolite | |
| Heroin (seen as metabolite below) | | Metabolized to 6-acetylmorphine, metabolite primarily detected after use | |
| 6-Acetylmorphine | 10 | Heroin metabolite | 1-3 d |
| Hydrocodone | 10 | Metabolized to norhydrocodone, dihydrocodeine and hydromorphone; all may be detected after use; codeine metabolite | 1-3 d |
| Norhydrocodone | 10 | Hydrocodone metabolite | |
| Dihydrocodeine | 1 | Hydrocodone metabolite | |

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| Hydromorphone | 10 | Hydromorphone detected after use; hydrocodone and morphine metabolite | |
| Morphine | 1 | Metabolized to hydromorphone; both may be detect after use; 6AM and codeine metabolite | 1-5 d |
| Naloxone | 10 | Naloxone detected after use | |
| Naltrexone | 10 | Naltrexone detected after use; opioid antagonist | |
| Meperidine | 1 | Metabolized to normeperidine; both may be detected after use | |
| Normeperidine | 1 | Meperidine metabolite | |
| Methadone | 10 | Metabolized to EDDP; both may be detected after use | 2-7 d |
| EDDP | 10 | Methadone metabolite | 7 d |
| Oxycodone | 1 | Metabolized to noroxycodone; both may be detected after use; Targin preparations also included naloxone (oxycodone with naloxone controlled release). Oxycontin, with acetaminophen; Percocent, with aspirin; Percodan, with ibuprofen. | 1-4 d |
| Noroxycodone | 10 | Oxycodone metabolite | |
| SSRI | | | |
| Citalopram | 1 | Citalopram detected after use | |
| Paroxetine | 10 | Paroxetine detected after use | |
| Venlafaxine | 10 | Venlafaxine detected after use | |
| O-desmethylvenlafaxine | 10 | O-desmethylvenlafaxine detected after use | |
| Stimulants and Related Drug Preparation Ingredients | | | |
| Methamphetamine | 10 | Metabolized to amphetamine; both may be detected after use | 1-2 d (infrequent use); 7-10 d (prolonged use) |
| Amphetamine | 100 | Amphetamine detected after use; methamphetamine metabolite | 1-2 d (infrequent use); 7-10 d (prolonged use) |
| MDEA | 10 | Metabolized to MDA; both may be detected after use | |
| MDMA | 10 | Metabolized to MDA; both may be detected after use; <i>Ecstasy</i> | 2 d |
| MDA | 10 | MDEA and MDMA metabolite | |
| Cocaine | 10 | Metabolized to benzoylecgonine, norcocaine and cocaethylene; all may be detected after use; cocaine is often cut with levamisole which may also be detected after use | 24 hours |
| Benzoylecgonine | 10 | Major cocaine metabolite | 1-3 d (infrequent use); 12 d (chronic use) |
| Norcocaine | 1 | Cocaine metabolite | |
| Levamisole | 1 | Cutting agent mixed with cocaine | |
| Benzylpiperazine | 1 | Synthetic stimulant; designer drug; <i>Ecstasy</i> | |
| MDPV | 1 | Synthetic amphetamine; designer drug sometimes referred to as a "bath salt" | |
| Mephedrone | 10 | Synthetic amphetamine; designer drug sometimes referred to as a "bath salt" | |
| Methylphenidate | 1 | Metabolized to ritalinic acid; both may be detected after use. Is a phenethylamine derivative used in the treatment of depression narcolepsy and attention deficit disorder. | |
| Ritalinic acid | 10 | Methylphenidate metabolite | |
| Diphenhydramine | 1 | Diphenhydramine detected after use | |
| Ephedrine/Pseudoephedrine | 10 | Ephedrine/Pseudoephedrine detected after use | |
| Cotinine | 100 | Nicotine metabolite | |
| Other | | | |
| Mitragynine; <i>Kratom</i> | 1 | Mitragynine detected after use | |
| 7-Hydroxymitragynine | 10 | Mitragynine metabolite | |
| Phenibut | 100 | Phenibut detected after use | |
| Zopiclone | 2.5 | Zopiclone detected after use; Z-drug | |
| Acronyms | | | |
| EDDP, 2-ethylidene-1,5-dimethyl-2,2-diphenylpyrrolidine | | | |
| mCPP, 1-(3-chlorophenyl)piperazine | | | |
| MDA, methylenedioxyamphetamine | | | |
| MDEA, methylenedioxyethylamphetamine | | | |
| MDMA, methylenedioxymethamphetamine | | | |
| MDPV, 3,4-methylenedioxypropylamphetamine | | | |
| THCA, 11-nor-9-carboxy- Δ^9 -tetrahydrocannabinol | | | |
| * Detection window varies with dose, acute/chronic use, individual metabolism, liver or kidney disease or disorders and urine concentration. | | | |
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