One Step Drug of Abuse Test

(Strip, Dipcard, Cassette)

Package Insert for Multi Drug Screen Test

This Instruction Sheet is for testing of any combination of the following drugs:
AMP/BAR/BZO/BUP/COC/THC/MTD/mAMP/MDMA/MOR/OPI/OXY/PCP/PPX/TCA/EDDP/6-ACM/COT /K2/KET/FEN/TRA/ETG/ALCO
Including Adulterant Tests (Specimen Validity Tests) for:
Oxidants (OX), Specific Gravity (S.G), pH, Creatinine (CRE), Nitrite (NIT) and Glutaraldehyde (GLU). A rapid, one step screening test for the simultaneous, qualitative detection of multiple drugs and drug metabolites in human urine.

For Forensic Use Only

INTENDED USE

The ***One Step Drug of Abuse Test*** is a lateral flow chromatographic immunoassay for the qualitative detection of multiple drugs and drug metabolites in urine at the following cut-off concentrations:

Test	Calibrator	Cut-off
Amphetamine (AMP 1000)	D-Amphetamine	1,000 ng/mL
Amphetamine (AMP 500)	D-Amphetamine	500 ng/mL
Amphetamine (AMP 300)	D-Amphetamine	300 ng/mL
Barbiturates (BAR)	Secobarbital	300 ng/mL
Benzodiazepines (BZO)	Oxazepam	300 ng/mL
Buprenorphine (BUP)	Buprenorphine	10 ng/mL
Cocaine (COC 300)	Benzoylecgonine	300 ng/mL
Cocaine (COC 150)	Benzoylecgonine	150 ng/mL
Marijuana (THC 50)	11-nor-Δ^9-THC-9-COOH	50 ng/mL
Marijuana (THC 20)	11-nor-Δ^9-THC-9-COOH	20 ng/mL
Methadone (MTD)	Methadone	300 ng/mL
Methamphetamine (mAMP 1000)	D-Methamphetamine	1,000 ng/mL
Methamphetamine (mAMP 500)	D-Methamphetamine	500 ng/mL
Methylenedioxymethamphetamine (MDMA)	D,L-Methylenedioxymethamphetamine	500 ng/mL
Opiate (OPI 300, MOP, MOR)	Morphine	300 ng/mL
Opiate (OPI 2000)	Morphine	2,000 ng/mL
Oxycodone (OXY)	Oxycodone	100 ng/mL
Phencyclidine (PCP)	Phencyclidine	25 ng/mL
Propoxyphene (PPX)	Propoxyphene	300 ng/mL
Tricyclic Antidepressants (TCA)	Nortriptyline	1,000 ng/mL
2-Ethylidene-1,5-dimethyl-3,3-dipheylpyrrolidine (EDDP)	2-Ethylidene-1,5-dimethyl-3,3-dipheylpyrrolidine	300 ng/mL
6-Acetylmorphine (6-ACM)	6-Acetylmorphine	10 ng/mL
Cotinine (COT)	Cotinine	200 ng/mL
Synthetic Cannabinoid (K2 50)	JWH-018 Pantanoic Acid / JWH-073 Butanoic Acid	50 ng/mL
Synthetic Cannabinoid (K2 20)	JWH-018 Pantanoic Acid / JWH-073 Butanoic Acid	20 ng/mL
Ketamine (KET)	Ketamine	1,000 ng/mL
Fentanyl (FEN)	Fentanyl	200 ng/mL
Tramadol (TRA)	Tramadol	50 ng/mL
Ethyl Glucuronide (ETG)	Ethyl Glucuronide	300 ng/mL
Alcohol (ALCO)	Alcohol	>0.04%

This assay provides only a preliminary qualitative test result. Use a more specific alternate quantitative analytical method to obtain a confirmed analytical result. Gas chromatography/mass spectrometry (GC/MS) is the preferred confirmatory method.[1] Apply clinical and professional judgment to any drug of abuse test result, particularly when preliminary positive results are obtained.

SUMMARY AND EXPLANATION OF THE TEST

The ***One Step Drug of Abuse Test*** is a competitive immunoassay utilizing highly specific reactions between antibodies and antigens for the detection of multiple drugs and drug metabolites in human urine without the use of an instrument.

PN: Y03111417O2

AMPHETAMINE (AMP 1000)
Amphetamine is a Schedule II controlled substance available by prescription (Dexedrine®) and is also available on the illicit market. Amphetamines are a class of potent sympathomimetic agents with therapeutic applications. They are chemically related to the human body's natural catecholamines: epinephrine and norepinephrine. Acute higher doses lead to enhanced stimulation of the central nervous system and induce euphoria, alertness, reduced appetite, and a sense of increased energy and power. Cardiovascular responses to Amphetamines include increased blood pressure and cardiac arrhythmias. More acute responses produce anxiety, paranoia, hallucinations, and psychotic behavior. The effects of Amphetamines generally last 2-4 hours following use, and the drug has a half-life of 4-24 hours in the body. About 30% of Amphetamines are excreted in the urine in unchanged form, with the remainder as hydroxylated and deaminated derivatives.
The AMP 1000 assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Amphetamine in urine exceeds 1,000 ng/mL. This is the suggested screening cut-off for positive specimens set by the Substance Abuse and Mental Health Services Administration (SAMHSA, USA).[3]

AMPHETAMINE (AMP 500)
See AMPHETAMINE (AMP 1000) for the summary.
The AMP 500 assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Amphetamine in urine exceeds 500 ng/mL.

AMPHETAMINE (AMP 300)
See AMPHETAMINE (AMP 1000) for the summary.
The AMP 300 assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Amphetamine in urine exceeds 300 ng/mL.

BARBITURATES (BAR)
Barbiturates are central nervous system depressants. They are used therapeutically as sedatives, hypnotics, and anticonvulsants. Barbiturates are almost always taken orally as capsules or tablets. The effects resemble those of intoxication with alcohol. Chronic use of barbiturates leads to tolerance and physical dependence. Short acting Barbiturates taken at 400 mg/day for 2-3 months can produce a clinically significant degree of physical dependence. Withdrawal symptoms experienced during periods of drug abstinence can be severe enough to cause death. Only a small amount (less than 5%) of most Barbiturates are excreted unaltered in the urine.
The approximate detection time limits for Barbiturates are:
Short acting (e.g. Secobarbital) 100 mg PO (oral) 4.5 days
Long acting (e.g. Phenobarbital) 400 mg PO (oral) 7 days[4]
The BAR assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Secobarbital in urine exceeds 300 ng/mL.

BENZODIAZEPINES (BZO)
Benzodiazepines are medications that are frequently prescribed for the symptomatic treatment of anxiety and sleep disorders. They produce their effects via specific receptors involving a neurochemical called gamma aminobutyric acid (GABA). Because they are safer and more effective, Benzodiazepines have replaced barbiturates in the treatment of both anxiety and insomnia. Benzodiazepines are also used as sedatives before some surgical and medical procedures, and for the treatment of seizure disorders and alcohol withdrawal.
Risk of physical dependence increases if Benzodiazepines are taken regularly (e.g., daily) for more than a few months, especially at higher than normal doses. Stopping abruptly can bring on such symptoms as trouble sleeping, gastrointestinal upset, feeling unwell, loss of appetite, sweating, trembling, weakness, anxiety and changes in perception.
Only trace amounts (less than 1%) of most Benzodiazepines are excreted unaltered in the urine; most of the concentration in urine is conjugated drug. The detection period for the Benzodiazepines in the urine is 3-7 days.
The BZO assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Oxazepam in urine exceeds 300 ng/mL.

BUPRENORPHINE (BUP)
Buprenorphine is a semisynthetic opioid analgesic derived from thebain, a component of opium. It has a longer duration of action than morphine when indicated for the treatment of moderate to severe pain, perioperative analgesia, and opioid dependence. Low doses buprenorphine produces sufficient agonist effect to enable opioid addicted individuals to discontinue the misuse of opioids without experiencing withdrawal symptoms. Buprenorphine carries a lower risk of abuse, addiction, and side effects compared to full opioid agonists because of the “ceiling effect”, which means no longer continue to increase with further increases in dose when reaching a plateau at moderate doses. However, it has also been shown that Buprenorphine has abuse potential and may itself cause dependency. Subutex®, and a Buprenorphine/Naloxone combination product, Suboxone®, are the only two forms of Buprenorphine that have been approved by FDA in 2002 for use in opioid addiction treatment. Buprenorphine was rescheduled from Schedule V to Schedule III drug just before FDA approval of Suboxone and Subutex.
The BUP assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Buprenorphine in urine exceeds 10 ng/mL.

COCAINE (COC 300)
Cocaine is a potent central nervous system (CNS) stimulant and a local anesthetic. Initially, it brings about extreme energy and restlessness while gradually resulting in tremors, over-sensitivity and spasms. In large amounts, cocaine causes fever, unresponsiveness, difficulty in breathing and unconsciousness.
Cocaine is often self-administered by nasal inhalation, intravenous injection and free-base smoking. It is excreted in the urine in a short time primarily as Benzoylecgonine.[1,2] Benzoylecgonine, a major metabolite of cocaine, has a longer biological half-life (5-8 hours) than cocaine (0.5-1.5 hours), and can generally be detected for 24-48 hours after cocaine exposure.[2]
The COC 300 assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Benzoylecgonine in urine exceeds 300 ng/mL. This is the suggested screening cut-off for positive specimens set by the Substance Abuse and Mental Health Services Administration (SAMHSA, USA).[3]

COCAINE (COC 150)
See COCAINE (COC 300) for the summary.
The COC 150 assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Benzoylecgonine in urine exceeds 150 ng/mL.

MARIJUANA (THC 50)
THC (Δ^9-tetrahydrocannabinol) is the primary active ingredient in cannabis (marijuana). When smoked or orally administered, THC produces euphoric effects. Users have impaired short term memory and slowed learning. They may also experience transient episodes of confusion and anxiety. Long-term, relatively heavy use may be associated with behavioral disorders. The peak effect of marijuana administered by smoking occurs in 20-30 minutes and the duration is 90-120 minutes after one cigarette. Elevated levels of urinary metabolites are found within hours of exposure and remain detectable for 3-10 days after smoking. The main metabolite excreted in the urine is 11-nor-Δ^9-tetrahydrocannabinol-9-carboxylic acid (11-nor-Δ^9-THC-9-COOH).
The THC 50 assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of 11-nor-Δ^9-THC-9-COOH in urine exceeds 50 ng/mL. This is the suggested screening cut-off for positive specimens set by the Substance Abuse and Mental Health Services Administration (SAMHSA, USA).[3]

MARIJUANA (THC 20)
See MARIJUANA (THC 50) for the summary.
The THC 20 assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of 11-nor-Δ^9-THC-9-COOH in urine exceeds 20 ng/mL.

METHADONE (MTD)
Methadone is a narcotic analgesic prescribed for the management of moderate to severe pain and for the treatment of opiate dependence (heroin, Vicodin, Percocet, Morphine). The pharmacology of oral Methadone is very different from IV Methadone. Oral Methadone is partially stored in the liver for later use. IV Methadone acts more like heroin. In most states you must go to a pain clinic or a Methadone maintenance clinic to be prescribed Methadone. Methadone is a long acting pain reliever producing effects that last from twelve to forty-eight hours. Ideally, Methadone frees the client from the pressures of obtaining illegal heroin, from the dangers of injection, and from the emotional roller coaster that most opiates produce. Methadone, if taken for long periods and at large doses, can lead to a very long withdrawal period. The withdrawals from Methadone are more prolonged and troublesome than those provoked by heroin cessation, yet the substitution and phased removal of methadone is an acceptable method of detoxification for patients and therapists.[4]
The MTD assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Methadone in urine exceeds 300 ng/mL.

METHAMPHETAMINE (mAMP 1000)
Methamphetamine is an addictive stimulant drug that strongly activates certain systems in the brain. Methamphetamine is closely related chemically to amphetamine, but the central nervous system effects of Methamphetamine are greater. Methamphetamine is made in illegal laboratories and has a high potential for abuse and dependence. The drug can be taken orally, injected, or inhaled. Acute higher doses lead to enhanced stimulation of the central nervous system and induce euphoria, alertness, reduced appetite, and a sense of increased energy and power. Cardiovascular responses to Methamphetamine include increased blood pressure and cardiac arrhythmias. More acute responses produce anxiety, paranoia, hallucinations, psychotic behavior, and eventually, depression and exhaustion. The effects of Methamphetamine generally last 2-4

hours and the drug has a half-life of 9-24 hours in the body. Methamphetamine is excreted in the urine as amphetamine and oxidized and delaminated derivatives. However, 10-20% of Methamphetamine is excreted unchanged. Thus, the presence of the parent compound in the urine indicates Methamphetamine use. Methamphetamine is generally detectable in the urine for 3-5 days, depending on urine pH level.
The mAMP 1000 assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Methamphetamine in urine exceeds 1,000 ng/mL.

METHAMPHETAMINE (mAMP 500)
See METHAMPHETAMINE (mAMP 1000) for the summary.
The mAMP 500 assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Methamphetamine in urine exceeds 500 ng/mL.

METHYLENEDIOXYMETHAMPHETAMINE (MDMA)
Methylenedioxymethamphetamine (ecstasy) is a designer drug first synthesized in 1914 by a German drug company for the treatment of obesity.[8] Those who take the drug frequently report adverse effects, such as increased muscle tension and sweating. MDMA is not clearly a stimulant, although it has, in common with amphetamine drugs, a capacity to increase blood pressure and heart rate. MDMA does produce some perceptual changes in the form of increased sensitivity to light, difficulty in focusing, and blurred vision in some users. Its mechanism of action is thought to be via release of the neurotransmitter serotonin. MDMA may also release dopamine, although the general opinion is that this is a secondary effect of the drug (Nichols and Oberlender, 1990). The most pervasive effect of MDMA, occurring in virtually all people who took a reasonable dose of the drug, was to produce a clenching of the jaws.
The MDMA assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Methylenedioxymethamphetamine in urine exceeds 500 ng/mL.

OPIATE (OPI 300, MOR, MOP)
Opiate refers to any drug that is derived from the opium poppy, including the natural products, morphine and codeine, and the semisynthetic drugs such as heroin. Opioid is more general, referring to any drug that acts on the opioid receptor.
Opioid analgesics comprise a large group of substances which control pain by depressing the central nervous system. Large doses of morphine can produce higher tolerance levels, physiological dependency in users, and may lead to substance abuse. Morphine is excreted unmetabolized, and is also the major metabolic product of codeine and heroin. Morphine is detectable in the urine for several days after an opiate dose.[4]
The OPI 300 assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Morphine in urine exceeds the 300 ng/mL.

OPIATE (OPI 2000)
Opiate refers to any drug that is derived from the opium poppy, including the natural products, morphine and codeine, and the semisynthetic drugs such as heroin. Opioid is more general, referring to any drug that acts on the opioid receptor.
Opioid analgesics comprise a large group of substances which control pain by depressing the central nervous system. Large doses of morphine can produce higher tolerance levels, physiological dependency in users, and may lead to substance abuse. Morphine is excreted unmetabolized, and is also the major metabolic product of codeine and heroin. Morphine is detectable in the urine for several days after an opiate dose.[4]
The OPI 2000 assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Morphine in urine exceeds 2,000 ng/mL. This is the suggested screening cut-off for positive specimens set by the Substance Abuse and Mental Health Services Administration (SAMHSA, USA).[3]

OXYCODONE (OXY)
Oxycodone,[4,5-epoxy-14-hydroxy-3-methoxy-17-methyl-morphinan-6-one, dihydrohydroxycodeinone] is a semisynthetic opioid agonist derived from thebaine, a constituent of opium. Oxycodone is a Schedule II narcotic analgesic and is widely used in clinical medicine. The pharmacology of oxycodone is similar to that of morphine, in all respects, including its abuse and dependence liabilities. Pharmacological effects include analgesia, euphoria, feelings of relaxation, respiratory depression, constipation, papillary constriction, and cough suppression.
Oxycodone is prescribed for the relief of moderate to high pain under pharmaceutical trade names as OxyContin® (controlled release), OxyIR®, OxyFast® (immediate release formulations), or Percodan® (aspirin) and Percocet® (acetaminophen) that are in combination with other nonnarcotic analgesics. Oxycodone's behavioral effects can last up to 5 hours. The controlled-release product, OxyContin®, has a longer duration of action (8-12 hours).
The OXY assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Oxycodone in urine exceeds 100 ng/mL.

PHENCYCLIDINE (PCP)
Phencyclidine, also known as PCP or Angel Dust, is a hallucinogen that was first marketed as a surgical anesthetic in the 1950's. It was removed from the market because patients receiving it became delirious and experienced hallucinations.
Phencyclidine is used in powder, capsule, and tablet form. The powder is either snorted or smoked after mixing it with marijuana or vegetable matter. Phencyclidine is most commonly administered by inhalation but can be used intravenously, intra-nasally, and orally. After low doses, the user thinks and acts swiftly and experiences mood swings from euphoria to depression. Self-injurious behavior is one of the devastating effects of phencyclidine.
PCP can be found in urine within 4 to 6 hours after use and will remain in urine for 7 to 14 days, depending on factors such as metabolic rate, user's age, weight, activity, and diet.[5] Phencyclidine is excreted in the urine as an unchanged drug (4% to 19%) and conjugated metabolites (25% to 30%).[6]
The PCP assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Phencyclidine in urine exceeds 25 ng/mL. This is the suggested screening cut-off for positive specimens set by the Substance Abuse and Mental Health Services Administration (SAMHSA, USA).[3]

PROPOXYPHENE (PPX)
Propoxyphene is a mild narcotic analgesic found in various pharmaceutical preparations, usually as the hydrochloride or napsylate salt. These preparations typically also contain large amounts of acetaminophen, aspirin, or caffeine. Peak plasma concentrations of propoxyphene are achieved from 1 to 2 hours post dose. In the case of overdose, propoxyphene blood concentrations can reach significantly higher levels. In human, propoxyphene is metabolized by N-demethylation to yield norpropoxyphene. Norpropoxyphene has a longer half-life (30 to 36 hours) than parent propoxyphene (6 to 12 hours). The accumulation of norpropoxyphene seen with repeated doses may be largely responsible for resultant toxicity.
The PPX assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Propoxyphene or Norpropoxyphene in urine exceeds 300 ng/mL.

TRICYCLIC ANTIDEPRESSANTS (TCA)
Tricyclic Antidepressants (TCA) are commonly used for the treatment of depressive disorders. TCA overdoses can result in profound central nervous system depression, cardiotoxicity and anticholinergic effects. TCA overdose is the most common cause of death from prescription drugs. TCAs are taken orally or sometimes by injection. TCAs are metabolized in the liver. Both TCAs and their metabolites are excreted in urine mostly in the form of metabolites for up to ten days.
The TCA assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Nortriptyline in urine exceeds 1,000 ng/mL.

2-ETHYLIDENE-1,5-DIMETHYL-3,3-DIPHEYLPYRROLIDINE (EDDP)
EDDP is an immunoassay based on the principle of competitive binding. Drugs which may be present in the urine specimen compete against the drug conjugate for binding sites on the antibody.
During testing, a urine specimen migrates upward by capillary action. EDDP, if present in the urine specimen below 300 ng/mL, will not saturate the binding sites of antibody coated particles in the test device. The antibody-coated particles will then be captured by immobilized EDDP conjugate and a visible colored line will show up in the test line region. The colored line will not form in the test line region if the EDDP level exceeds 300 ng/mL because it will saturate all the binding sites of anti-EDDP antibodies. A drug-positive urine specimen will not generate a colored line in the test line region, while a drug-negative urine specimen or a specimen containing a drug concentration less than the cut-off will generate a line in the test line region. To serve as a procedural control, a colored line will always appear at the control line region indicating that proper volume of specimen has been added and membrane wicking has occurred.
The EDDP assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of 2-Ethylidene-1,5-Dimethyl-3,3-Dipheylpyrrolidine in urine exceeds 300 ng/mL.

6-ACETYLMORPHINE (6-ACM)
6-Acetylmorphine (6-ACM) is one of three active metabolites of heroin (diacetylmorphine), the others being morphine and the much less active 3-acetylmorphine (3-ACM). 6-ACM is rapidly created from heroin in the body, and then is either metabolized into morphine or excreted in the urine. Since 6-ACM is a unique metabolite to heroin, its presence in the urine confirms that heroin was the opioid used. This is significant because on a urine immunoassay drug screen, the test typically tests for morphine, which is a metabolite of a number of legal and illegal opiates/opioids such as codeine, morphine sulphate, and heroin. 6-ACM remains in the urine for no more than 24 hours so a urine specimen must be collected soon after the last heroin use, but the presence of 6-ACM guarantees that heroin was in fact used as recently as within the last day.
The 6-ACM assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of 6-Acetylmorphine in urine exceeds 10 ng/mL.

COTININE (COT)
Cotinine is the first-stage metabolite of nicotine, a toxic alkaloid that produces stimulation of the autonomic ganglia and central nervous system when in humans. Nicotine is a drug to which virtually every member of a tobacco-smoking society is exposed whether through direct contact or second-hand inhalation. In addition to tobacco, nicotine is also commercially available as theactive ingredient in smoking replacement therapies such as nicotine gum, transdermal patches and nasal sprays.
In a 24-hour urine, approximately 5% of a nicotine dose is excreted as unchanged drug with 10% as cotinine and 35% as hydroxycotinine; the concentrations of other metabolites are believed to account for less than 5%[1]. While cotinine is thought to be an inactive metabolite, it's elimination profile is more stable than that of nicotine which is largely urine pH dependent. As a result, cotinine is considered a good biological marker for determining nicotine use. The plasma half-life of nicotine is approximately 60 minutes following inhalation or parenteral administration[2]. Nicotine and cotinine are rapidly eliminated by the kidney; the window of detection for cotinine in urine at a cutoff level of 200 ng/mL is expected to be up to 2-3 days after nicotine use.
The COT assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Cotinine in urine exceeds 200 ng/mL.

SYNTHETIC CANNABINOIDS (K2 50)
Since 2004, herbal mixtures such as "Spice" have been sold in Switzerland, Austria, Germany and other European countries mainly via Internet shops. Although declared as incense, they are smoked as "bio-drugs" by the consumers. In corresponding blogs, drug users reported cannabis-like effects after smoking. These products enjoy great popularity particularly among younger people, as up to now the mixtures are sold in head shops and via internet in many countries without age restriction.[10]
JWH-018 was developed and evaluated in basic scientific research to study structure activity relationships related to the cannabinoid receptors.[11] JWH-073 has been identified in numerous herbal products, such as "Spice", "K2", and "K3".[12] These products may be smoked for their psychoactive effects.
The K2 50 assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Synthetic Cannabinoid compounds in urine exceeds 50 ng/mL.

SYNTHETIC CANNABINOIDS (K2 20)
See SYNTHETIC CANNABINOIDS (K2 50) for the summary.
The K2 20 assay contained within the ***One Step Drug of Abuse Test*** yieids a positive result when the concentration of Synthetic Cannabinoid compounds in urine exceeds 20 ng/mL.

KETAMINE (KET)
Ketamine is a short-acting "dissociative" anesthetic due to its ability to separate perception from sensation. It also has hallucinogenic and painkilling qualities that seem to affect people in very different ways. Ketamine is chemically related to PCP (Angel Dust). Ketamine is occasionally administered to people but, more commonly, is used by vets for pet surgery. Generally street K is most often diverted in liquid form from vets' offices or medical suppliers. Ketamine generally takes 1-5 minutes to take effect. Snorted ketamine takes a little longer at 5-15 minutes. Depending on how much and how recently one has eaten, oral ketamine can take between 5 and 30 minutes to take effect. The primary effects of ketamine last approximately an 30-45 minutes if injected, 45-60 minutes when snorted, and 1-2 hours if used orally. The Drug Enforcement Administration reports that the drug can still affect the body for up to 24 hours.
The KET assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Ketamine in urine exceeds 1,000 ng/mL.

FENTANYL (FEN)
Fentanyl is a potent, synthetic opioid analgesic with a rapid onset and short duration of action.[13] It is a strong agonist at the μ-opioid receptors. Historically, it has been used to treat breakthrough pain and is commonly used in pre-procedures as a pain reliever as well as an anesthetic in combination with a benzodiazepine. Fentanyl is approximately 80 to 100 times more potent than morphine and roughly 15 to 20 times more potent than heroin.[14,15] Fentanyl and its derivatives are used recreationally. Deaths have resulted from both recreational and improper medical use.[16]
The FEN assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Fentanyl in urine exceeds 200 ng/mL.

TRAMADOL (TRA)
Tramadol is a quasi-narcotic analgesic used in the treatment of moderate to severe pain. It is a synthetic analog of codeine, but has a low binding affinity to the mu-opioid receptors. Large doses of tramadol can develop tolerance and physiological dependency and lead to its abuse. Tramadol is extensively metabolized after oral administration. Approximately 30% of the dose is excreted in the urine as unchanged drug, whereas 60% is excreted as metabolites.
The TRA assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Tramadol in urine exceeds 50 ng/mL

ETHYL GLUCURONIDE (ETG)

Ethyl Glucuronide (EtG) is a direct metabolite of ethanol, which is formed by enzymatic conjugation of ethanol with glucuronic acid.[17,18] Alcohol in urine is normally detected for only a few hours, whereas EtG can be detected up to several days even after complete elimination of alcohol from the body.[19] Therefore, EtG can be a useful diagnostic biomarker for determining recent alcohol use and in monitoring abstinence in alcoholics in alcohol withdrawal treatment programs.[20-23] Ethanol can be produced *in vitro* due to fermentation of urine samples containing sugars, bacteria or yeast when samples are exposed to warm temperatures.[24] In such cases, EtG test can be used, as a confirmatory test to determine if the alcohol in the sample is due to consumption of alcohol or it is formed *in vitro* as a result of fermentation. Currently EtG is monitor by GC/MS and LC/MS/MS.[25,26]

Ethyl glucuronide (EtG) is a minor non-oxidative metabolite of ethyl alcohol formed by the in vivo conjugation of ethanol with glucuronic acid with UDP glucuronosyltransferase. EtG is a product of metabolic process of ingested alcohol (ethanol) rapidly metabolized in the body, which is excrete in the blood, hair and urine. By using, the ***One Step Drug of Abuse Test*** EtG can be detect in urine, confirming the consumption of alcohol. The EtG metabolite remains in the body longer and therefore has a more useful window of detection of 8 to 80 hours. EtG testing is an excellent option for zero-tolerance alcohol consumption or for rehabilitation programs.

The EtG assay contained within the ***One Step Drug of Abuse Test*** yields a positive result when the concentration of Ethyl Glucuronide in urine exceeds 300 ng/mL.

ALCOHOL (ALCO)

Excess or inappropriate consumption of alcohol is a common and pervasive social problem. It is a contributory factor to many accidents, injuries and medical conditions. Urine alcohol test is intended for use as a rapid method to detect the presence of alcohol in urine greater than 0.04%.To confirm the concentration of positive specimens, an alternate, non-enzymatic technology such as headspace gas chromatography should be used.

ADULTERANT TESTS (SPECIMEN VALIDITY TESTS) SUMMARY

The adulterant test strip contains chemically treated reagent pads. Observation of the color change on the strip compared to the color chart provides a semi-quantitative screen for oxidants, specific gravity, pH, creatinine, nitrite and glutaraldehyde in human urine which can help to assess the integrity of the urine specimen.

ADULTERATION

Adulteration is the tampering of a urine specimen with the intention of altering the test results. The use of adulterants in the urine specimen can cause false negative results by either interfering with the test and/or destroying the drugs present in the urine. Dilution may also be used to produce false negative drug test results. To determine certain urinary characteristics such as specific gravity and pH, and to detect the presence of oxidants, nitrite, glutaraldehyde and creatinine in urine are considered to be the best ways to test for adulteration or dilution.

- Oxidants (OX): Tests for the presence of oxidizing agents such as bleach and peroxide in the urine.
- Specific Gravity (S.G.): Tests for sample dilution. Normal levels for specific gravity will range from 1.003 to 1.030. Specific gravity levels of less than 1.003 or higher than 1.030 may be an indication of adulteration or specimen dilution.
- pH: Tests for the presence of acidic or alkaline adulterants in urine. Normal pH levels should be in the range of 4.0 to 9.0. Values below pH 4.0 or above pH 9.0 may indicate the sample has been altered.
- Nitrite (NIT): Tests for commercial adulterants such as Klear and Whizzies. Normal urine specimens should contain no trace of nitrite. Positive results for nitrite usually indicate the presence of an adulterant.
- Glutaraldehyde (GLU): Tests for the presence of an aldehyde. Glutaraldehyde is not normally found in a urine specimen. Detection of glutaraldehyde in a specimen is generally an indicator of adulteration.
- Creatinine (CRE): Creatinine is one way to check for dilution and flushing, which are the most common mechanisms used in an attempt to circumvent drug testing. Low creatinine may indicate dilute urine.

PRINCIPLE

(1) The ***One Step Drug of Abuse Test*** is an immunoassay based on the principle of competitive binding. Drugs which may be present in the urine specimen compete against their respective drug conjugate for binding sites on their specific antibody.

During testing, a urine specimen migrates upward by capillary action. A drug, if present in the urine specimen below its cut-off concentration, will not saturate the binding sites of its specific antibody. The antibody will then react with the drug-protein conjugate and a visible colored line will show up in the test line region of the specific drug strip . The presence of d rug above the cut-off concentration will saturate all the binding sites of the antibody. Therefore, the colored line will not form in the test line region.

A drug-positive urine specimen will not generate a colored line in the specific test line region of the strip because of drug competition, while a drug-negative urine specimen will generate a line in the test line region because of the absence of drug competition.

To serve as a procedural control, a colored line will always appear at the control line region, indicating that proper volume of specimen has been added and membrane wicking has occurred.

(2) Alcohol test is based on the high specifity of alcohol oxidase (ALOx) for ethyl alcohol in the presence of peroxidase and enzyme substrate such as tetramethylbenzidine (TMB) as shown in the following:

$$EtOH + TMB \xrightarrow{ALOx/Peroxidase} CH_3CHO + \text{Colored TMB}$$

The distinct color on reactive pad could be observed in less than 60 seconds after the reaction pad was wetted with urine specimens with the ethyl alcohol concentration greater than 0.04%. It should be pointed out that other alcohols such as methyl, propanyl and allyl alcohol would develop the similar color on the reactive pad. However, these alcohols are not normally present in human urine.

REAGENTS

(1) The test contains a membrane strip coated with drug-protein conjugates (purified bovine albumin) on the test line, a goat polyclonal antibody against gold-protein conjugate at the control line, and a dye pad which contains colloidal gold particles coated with mouse monoclonal antibody specific to individual drug on the list in the "Intended Use" section.

(2) The alcohol pad contains tetramethylbenzidine, alcohol oxidaze, peroxidase, buffer and stabilizing proteins.

Adulteration Pad	Reactive Indicator	Buffers and Non-reactive Ingredients
Oxidants (OX)	0.36%	99.64%
Specific Gravity (S.G.)	0.25%	99.75%
pH	0.06%	99.94%
Nitrite (NIT)	0.07%	99.93%
Glutaraldehyde (GLU)	0.02%	99.98%
Creatinine (CRE)	0.04%	99.96%

PRECAUTIONS

- For Forensic Use Only.
- Do not use after the expiration date.
- The test device should remain in the sealed pouch until use.
- The test is for single use.
- While urine is not classified by OSHA or the CDC as a biological hazard unless visibly contaminated with blood[8,9], the use of gloves is recommended to avoid unnecessary contact with the specimen.
- The used test device and urine specimen should be discarded according to federal, state and local regulations.

STORAGE AND STABILITY

Store as packaged in the sealed pouch at 2-30°C (36-86°F). The test is stable through the expiration date printed on the sealed pouch. The test device must remain in the sealed pouch until use. DO NOT FREEZE. Do not use beyond the expiration date.

SPECIMEN COLLECTION AND PREPARATION

Urine Assay

The urine specimen must be collected in a clean and dry container. Urine collected at any time of the day may be used. Urine specimens exhibiting visible precipitates should be allowed to settle to obtain a clear specimen for testing.

SPECIMEN STORAGE

Urine specimens may be stored at 2-8°C (36-46°F) for up to 48 hours prior to testing. For prolonged storage, specimens may be frozen and stored below -20°C. Frozen specimens should be thawed and mixed well before testing.

MATERIALS

Materials Provided

- Test device • Desiccants • Package insert • Procedure card (for test cup use only)
- Color chart card for adulterant and alcohol interpretation (when applicable)
- Disposable specimen droppers (for test cassette only)

Materials Required But Not Provided

- Specimen collection container (for strip, cassette, dipcard) • Disposable gloves • Timer

DIRECTIONS FOR USE

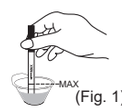
Allow the test device, and urine specimen to come to room temperature [15-30°C (59-86°F)] prior to testing.

[For Strip]

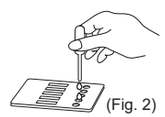
1) Remove the strip from the foil pouch or the desiccated container (bring the container to the room temperature before opening to avoid condensation of moisture in container). Label the strip with patient or control identifications.
2) Immerse the strip into the urine with the arrow end pointing toward the urine. Do not cover the strip with urine over the MAX (maximum) line. You may leave the strip in the urine or you may take the strip out after a minimum of 15 seconds in the urine and lay the strip flatly on a non-absorptive clean surface.
3) Read result at 5 minutes. **DO NOT READ RESULT AFTER 10 MINUTES.** (Fig. 1)

[For Cassette]

1) Remove the test cassette from its foil pouch by tearing along the slice. Label the cassette with patient or control identifications.
2) Using the specimen dropper, withdraw the urine sample from the specimen container and slowly dispense 3 drops (approximately 120mL) into the circular sample well, being careful not to overfill the absorbent pad.
3) Read results of alcohol test at 2 minutes, and drug tests at 5 minutes. **DO NOT READ ALCOHOL TEST RESULT AFTER 5 MINUTES AND DRUG TESTS RESULTS AFTER 10 MINUTES.** (Fig. 2)

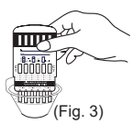


(Fig. 1)


(Fig. 2)

[For Dipcard]

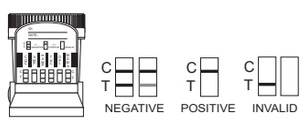
1) Remove the test dip card from the foil pouch.
2) Remove the cap from the test dip card. Label the dip card with patient or control identifications.
3) Immerse the absorbent tip into the urine sample for 5 seconds. Urine sample should not touch the plastic device.
4) Replace the cap over the absorbent tip and lay the dip card flatly on a non-absorptive clean surface.
5) Read results of alcohol test at 2 minutes, adulterant tests at 3 minutes, and drug tests at 5 minutes. **DO NOT READ ALCOHOL AND ADULTERANT TESTS RESULTS AFTER 5 MINUTES AND DRUG TESTS RESULTS AFTER 10 MINUTES.** (Fig. 3)


(Fig. 3)

[For Multi-Drug Screen Test Cup]

Please follow the instructions on the Procedure Card. Read results of alcohol test at 2 minutes, adulterant test at 3 minutes, and drug tests at 5 minutes. **DO NOT READ ALCOHOL AND ADULTERANT TESTS RESULTS AFTER 5 MINUTES AND DRUG TESTS RESULTS AFTER 10 MINUTES.** (Fig. 4)

(Fig. 4)



INTERPRETATION OF RESULTS

(Please refer to the previous illustration)

NEGATIVE: Two lines appear. * One color line should be in the control region (C), and another apparent color line adjacent should be in the test region (T). This negative result indicates that the drug concentration is below the detectable level.

*NOTE: The shade of color in the test line region (T) will vary, but it should be considered negative whenever there is even a faint distinguishable color line.

POSITIVE: One color line appears in the control region (C). No line appears in the test region (T). This positive result indicates that the drug concentration is above the detectable level.

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INVALID: Control line fails to appear. Insufficient specimen volume or incorrect procedural techniques are the most likely reasons for control line failure. Review the procedure and repeat the test using a new test device. If the problem persists, discontinue using the lot immediately and contact your supplier.

(Please refer to the alcohol color chart)
Alcohol Test Results
NEGATIVE: Almost no color change by comparing with the background. The negative result indicates that the alcohol concentration is less than 0.04%.
POSITIVE: A distinct color developed all over the pad. The positive result indicates that the urine alcohol concentration is 0.04% or higher.
INVALID: The test should be considered invalid if only the edge of the reactive pad turned color that might be attributed to insufficient sampling. The subject should be retested.

ADULTERANT TESTS (SPECIMEN VALIDITY TESTS) INTERPRETATION

(Please refer to the color chart)
Semi-quantitative results are obtained by visually comparing the reacted color blocks on the strip to the printed color indicator on the color chart. No instrumentation is required.

ADULTERANT TESTS (SPECIMEN VALIDITY TESTS) LIMITATIONS

1. The adulterant tests included with the product are meant to aid in the determination of abnormal specimens, but may not cover all the possible adulterants.
2. Oxidants: Normal human urine should not contain oxidants. The presence of high level of antioxidants in the specimen, such as ascorbic acid, may result in false negative results for the oxidants pad.
3. Specific Gravity: Elevated levels of protein in urine may cause abnormally high specific gravity values.
4. Nitrite: Nitrite is not a normal component of human urine. However, nitrite found in urine may indicate urinary tract infections or bacterial infections. Nitrite levels of > 20mg/dL may produce false positive glutaraldehyde results.
5. Glutaraldehyde: Is not normally found in a urine specimen. However certain metabolic abnormalities such as ketoacidosis (fasting, uncontrolled diabetes or high-protein diets) may interfere with the test results.
6. Creatinine: Tests for the specimen for dilution and flushing. Normal creatinine levels are between 20 and 350mg/dL. Under rare conditions, certain kidney diseases may show dilute urine.

QUALITY CONTROL

A procedural control is included in the test. A color line appearing in the control region (C) is considered an internal procedural control. It confirms sufficient specimen volume, adequate membrane wicking and correct procedural technique.

LIMITATIONS

1. The ***One Step Drug of Abuse Test*** provides only a qualitative, preliminary analytical result. A secondary analytical method must be used to obtain a confirmed result. Gas chromatography/mass spectrometry (GC/MS) is the preferred confirmatory method. [3,4,7]
2. There is a possibility that technical or procedural errors, as well as other interfering substances in the urine specimen may cause erroneous results.
3. Adulterants, such as bleach and/or alum, in urine specimens may produce erroneous results regardless of the analytical method used. If adulteration is suspected, the test should be repeated with another urine specimen and a new test device.
4. A positive result does not indicate intoxication of the donor, the concentration of drug in the urine, or the route of drug administration.
5. A negative result may not necessarily indicate drug-free urine. Negative results can be obtained when drug is present but below the cut-off level of the test.
6. Test does not distinguish between drugs of abuse and certain medications.
7. A positive test result may be obtained from certain foods or food supplements.
8. Alcohol test is designed for use with human urine only. A positive result indicates only the presence of alcohol and does not indicate or measure intoxication.
9. There is a possibility that technical or procedure error for alcohol test as well other substances in certain foods and medicines may interfere with the test and cause false results. Please refer to “Analytical Specificity” section for alcohol test list of substances that will interfere the test results.
10. Alcohol test is a semi-quantitative assay. It identifies alcohol in human urine specimens at a concentration of 0.04% or higher.

PERFORMANCE CHARACTERISTICS

Accuracy

In the comparison study, the ***One Step Drug of Abuse Test*** was compared to a GC/MS reference method to determine its accuracy. Clinical urine samples were collected for each of the drug types list on the following table. Clinical specimens were quantified by GC/MS analysis before testing.

Test	Compounds Contributed to the Totals of GC/MS
AMP	Amphetamine
BAR	Secobarbital, Butalbital, Phenobarbital, Pentobarbital
BZO	Oxazepam, Nordiazepam, a -OH-Alprazolam, Desalkylflurazepam
BUP	Buprenorphine
COC	Benzoylecgonine
THC	11-nor-Δ^9-tetrahydrocannabinol-9-carboxylic acid
MTD	Methadone
mAMP	Methamphetamine
MDMA	D,L-Methylenedioxymethamphetamine, Methylenedioxyamphetamine
OPI, MOR	Morphine, Codeine
OXY	Oxycodone
PCP	Phencyclidine
PPX	Propoxyphene
TCA	Nortriptyline
EDDP	2-Ethylidene-1,5-Dimethyl-3,3-Dipheylpyrrolidine
6-ACM	6-Acetylmorphine
COT	Cotinine
K2	JWH-018 Pentanoic Acid / JWH-073 Butanoic Acid
KET	Ketamine
FEN	Fentanyl
TRA	Tramadol
ETG	Ethyl Glucuronide

The following results are tabulated from these clinical studies:
% Agreement with GC/MS (HPLC for TCA,Predicate Device for COT and KET)

	AMP	mAMP	OPI 2000	OPI 300	COC	PCP	AMP300	COC150	THC20	mAMP500	6-ACM	BAR	TCA
Positive Agreement	95%	96%	>99%	96%	96%	95%	>99%	>99%	>99%	>99%	98%	97%	98%
Negative Agreement	>99%	>99%	97%	>99%	>99%	>99%	98%	>99%	>99%	>99%	>99%	98%	>99%
Overall Agreement	98%	98%	98%	98%	98%	95%	99%	>99%	>99%	>99%	99%	98%	99%

	MDMA	BZO	MTD	OXY	EDDP	THC	PPX	BUP	AMP500	COT	K2 50	K2 20	KET	ETG
Positive Agreement	93%	96%	94%	95%	98%	96%	95%	93%	>99%	>99%	>97%	>97%	>99%	>99%
Negative Agreement	>99%	>99%	98%	>99%	95%	>99%	98%	95%	95%	94%	>99%	>99%	>99%	>99%
Overall Agreement	96%	98%	96%	98%	96%	98%	96%	94%	98%	96%	98%	98%	>99%	>99%

Analyte	BAR		MDMA		BZO		MTD		OXY		TCA		THC		KET	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
Negative Samples	0	4	0	4	0	5	0	3	0	4	0	4	0	0	0	270
Near Cut-off Negative Samples [between 50% of cut-off and cut-off]	1	37	0	36	0	28	1	44	0	36	0	36	0	15		
Near Cut-off Positive Samples [between cut-off and 150% of cut-off]	34	1	33	3	27	2	27	2	34	2	35	1	23	1	274	1
Positive Samples [>150% of cut-off]	3	0	4	0	18	0	3	0	4	0	4	0	1	0		
Agreement with GC/MS	97%	98%	93%	>99%	96%	>99%	94%	98%	95%	>99%	98%	>99%	96%	>99%	>99%	>99%

Analyte	PCP		THC 20		AMP 300		mAMP		OPI 300		OPI 2000		COC		K2 20		K2 50	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
Negative Samples	0	1	0	40	0	42	0	4	0	3	0	17	0	0	1	22	1	20
Near Cut-off Negative Samples [between 50% of cut-off and cut-off]	0	0	0	3	1	6	0	10	0	11	1	13	0	13				
Near Cut-off Positive Samples [between cut-off and 150% of cut-off]	7	2	3	0	3	0	3	1	18	1	3	0	26	1	37	0	39	0
Positive Samples [>150% of cut-off]	28	0	47	0	40	0	22	0	7	0	6	0	0	0				
Agreement with GC/MS	95%	>99%	>99%	>99%	>99%	98%	96%	>99%	96%	>99%	>99%	97%	96%	>99%	>97%	>99%	>97%	>99%

Analyte	AMP		PPX		EDDP		BUP		COC150		mAMP500		AMP500		6-ACM		ETG		COT	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
Negative Samples	0	1	0	20	0	20	0	20	0	40	0	42	0	20	0	20	0	70	0	185
Near Cut-off Negative Samples [between 50% of cut-off and cut-off]	0	19	1	19	2	18	2	18	0	6	0	6	2	18	0	20	0	70		
Near Cut-off Positive Samples [between cut-off and 150% of cut-off]	7	1	18	2	19	1	17	3	4	0	11	0	20	0	19	1	70	0	103	12
Positive Samples [>150% of cut-off]	13	0	20	0	20	0	20	0	51	0	31	0	20	0	20	0	70	0		
Agreement with GC/MS	95%	>99%	95%	98%	98%	95%	93%	95%	>99%	>99%	>99%	99%	>99%	95%	98%	>99%	>99%	>99%	>99%	94%

Reproducibility

Reproducibility studies were carried out using commercially available stock solutions of the drug analytes listed. Dilutions were made from the stock solution of each drug to the concentrations specified in the following tables. The results are listed in the following tables.

AMPHETAMINE (AMP 1000)

Amphetamine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
500	40	40 negative	>99%
750	40	40 negative	>99%
1,000	40	40 positive	>99%
1,500	40	40 positive	>99%

AMPHETAMINE (AMP 500)

Amphetamine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
250	40	40 negative	>99%
750	40	40 positive	>99%
1,000	40	40 positive	>99%

AMPHETAMINE (AMP 300)

Amphetamine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	60	60 negative	>99%
150	30	30 negative	>99%
225	15	15 negative	>99%
375	15	15 positive	>99%
450	30	30 positive	>99%
600	30	30 positive	>99%

BARBITURATES (BAR)

Secobarbital conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
150	40	40 negative	>99%
225	40	40 negative	>99%
300	40	40 positive	>99%
450	40	40 positive	>99%

BENZODIAZEPINES (BZO)

Oxazepam conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
150	40	40 negative	>99%
225	40	40 negative	>99%
300	40	40 positive	>99%
450	40	40 positive	>99%

COCAINE (COC 300)

Benzoylecgonine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
150	40	40 negative	>99%
225	40	40 negative	>99%
375	40	40 positive	>99%
450	40	40 positive	>99%

COCAINE (COC 150)

Benzoylecgonine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	60	60 negative	>99%
75	30	30 negative	>99%
112.5	15	15 negative	>99%
187.5	15	11 positive	>73%
225	30	29 positive	>96%
300	30	30 positive	>99%

MARIJUANA (THC 50)

11-nor-Δ^9-THC-9-COOH conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
25	40	40 negative	>99%
37.5	40	40 negative	>99%
50	40	40 positive	>99%
75	40	40 positive	>99%

MARIJUANA (THC 20)

11-nor-Δ^9-THC-9-COOH conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	60	60 negative	>99%
10	30	29 negative	97%
15	15	9 negative	60%
25	15	12 positive	>80%
30	30	29 positive	97%
40	30	30 positive	>99%

METHADONE (MTD)

Methadone conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
150	40	40 negative	>99%
225	40	40 negative	>99%
300	40	40 positive	>99%
450	40	40 positive	>99%

METHAMPHETAMINE (mAMP 1000)

Methamphetamine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
500	40	40 negative	>99%
750	40	40 negative	>99%
1,000	40	40 positive	>99%
1,500	40	40 positive	>99%

METHAMPHETAMINE (mAMP 500)

Methamphetamine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	60	60 negative	>99%
250	30	30 negative	>99%
375	15	15 negative	>99%
625	15	12 positive	>80%
750	30	30 positive	>99%
1000	30	30 positive	>99%

METHYLENEDIOXYMETHAMPHETAMINE (MDMA)

Methylenedioxymeth-amphetamine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
250	40	40 negative	>99%
375	40	40 negative	>99%
500	40	40 positive	>99%
750	40	40 positive	>99%

OPIATE (OPI 300, MOP, MOR)

Morphine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
150	40	40 negative	>99%
225	40	40 negative	>99%
300	40	40 positive	>99%
375	40	40 positive	>99%

OPIATE (OPI 2000)

Morphine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
1,000	40	40 negative	>99%
1,500	40	40 negative	>99%
2,000	40	40 positive	>99%
3,000	40	40 positive	>99%

OXYCODONE (OXY)

Oxycodone conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
50	40	40 negative	>99%
75	40	40 negative	>99%
100	40	40 positive	>99%
150	40	40 positive	>99%

PHENCYCLIDINE (PCP)

Phencyclidine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
12.5	40	40 negative	>99%
19	40	40 negative	>99%
25	40	40 positive	>99%
37.5	40	40 positive	>99%

TRICYCLIC ANTIDEPRESSANTS (TCA)

Nortriptyline conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
500	40	40 negative	>99%
750	40	40 negative	>99%
1,000	40	40 positive	>99%
1,500	40	40 positive	>99%

2-ETHYLIDENE-1,5-DIMETHYL-3,3-DIPHEYLPYRROLIDINE (EDDP)

EDDP conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	60	60 negative	>99%
150	60	60 negative	>99%
450	60	60 positive	>99%
600	60	60 positive	>99%

6-ACETYLMORPHINE (6-ACM)

6-Acetylmorphine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	40	40 negative	>99%
5	40	40 negative	>99%
15	40	40 positive	>99%
20	40	40 positive	>99%

BUPRENORPHINE (BUP)

Buprenorphine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	60	60 negative	>99%
5	60	60 negative	>99%
15	60	60 positive	>99%
20	60	60 positive	>99%

PROPOXYPHENE (PPX)

Propoxyphene conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	60	60 negative	>99%
150	60	60 negative	>99%
450	60	60 positive	>99%
600	60	60 positive	>99%

KETAMINE (KET)

Ketamine conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	24	24 negative	>99%
500	24	24 negative	>99%
1,000	24	24 positive	>99%
1,500	24	24 positive	>99%

COTININE (COT)

Cotinine conc. (ng/mL)	Total number of Determinations	Result	Precision
No drug present	60	60 negative	>99%
100	60	60 negative	>99%
400	60	60 positive	>99%

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SYNTHETIC CANNABINOID (K2 50)

JWH-018 Pentanoic Acid/ JWH-073 Butanoic Acid conc. (ng/mL)	Total number of Determinations	Result	Precision
No drug present	60	60 negative	>99%
25	60	60 negative	>99%
75	60	60 positive	>99%

SYNTHETIC CANNABINOID (K2 20)

JWH-018 Pentanoic Acid/ JWH-073 Butanoic Acid conc. (ng/mL)	Total number of Determinations	Result	Precision
No drug present	60	60 negative	>99%
10	60	60 negative	>99%
30	60	60 positive	>99%

FENTANYL (FEN)

Fentanyl conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	60	60 negative	>99%
100	60	60 negative	>99%
300	60	60 positive	>99%

TRAMADOL（TRA）

Tramadol conc.(ng/mL)	Total number of Determinations	Result	Precision
No drug present	60	60 negative	>99%
25	60	60 negative	>99%
75	60	60 positive	>99%

ETHYL GLUCURONIDE (ETG)

Ethyl Glucuronide conc. (ng/mL)	Total number of Determinations	Result	Precision
No drug present	70	70 negative	>99%
150	70	70 negative	>99%
450	70	70 positive	>99%
600	70	70 positive	>99%

Analytical Sensitivity

A drug-free urine pool was spiked with drugs at concentrations listed. The results are summarized below.

Drug concentration Cut-off Range	n	AMP 1000		BAR		BZO		COC 300		THC 50	
		-	+	-	+	-	+	-	+	-	+
0% Cut-off	10	10	0	10	0	10	0	10	0	10	0
-50% Cut-off	10	10	0	10	0	10	0	10	0	10	0
-25% Cut-off	10	10	0	10	0	10	0	10	0	10	0
Cut-off	10	0	10	0	10	0	10	0	10	0	10
+25% Cut-off	10	0	10	0	10	0	10	0	10	0	10
+50% Cut-off	10	0	10	0	10	0	10	0	10	0	10

Drug concentration Cut-off Range	n	MTD		mAMP1000		MDMA		MOR		OPI 2000		OXY		PCP		TCA	
		-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+
0% Cut-off	10	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0
-50% Cut-off	10	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0
-25% Cut-off	10	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0
Cut-off	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
+25% Cut-off	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10
+50% Cut-off	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10	0	10

Drug concentration Cut-off Range	n	AMP 300		COC 150		THC 20		mAMP 500	
		-	+	-	+	-	+	-	+
0% Cut-off	25	25	0	25	0	25	0	25	0
-50% Cut-off	25	25	0	25	0	25	0	25	0
-25% Cut-off	25	25	0	25	0	25	0	25	0
Cut-off	25	1	24	3	22	2	23	2	23
+25% Cut-off	25	0	25	0	25	0	25	0	25
+50% Cut-off	25	0	25	0	25	0	25	0	25

Drug concentration Cut-off Range	n	BUP		PPX		EDDP		6-ACM		AMP500		COT		n	ETG	
		-	+	-	+	-	+	-	+	-	+	-	+		-	+
0% Cut-off	90	90	0	90	0	90	0	90	0	90	0	90	0	30	30	0
-50% Cut-off	90	90	0	90	0	90	0	90	0	90	0	90	0	30	30	0
-25% Cut-off	90	81	9	81	9	78	12	80	10	81	9	90	0	30	30	0
Cut-off	90	48	42	44	46	41	49	46	44	45	45	63	27	30	3	27
+25% Cut-off	90	11	79	12	78	15	75	12	78	10	80	40	50	30	1	29
+50% Cut-off	90	0	90	0	90	0	90	0	90	0	90	16	74	30	0	30
2X Cut-off	90	0	90	0	90	0	90	0	90	0	90	0	90	30	0	30

Drug concentration Cut-off Range	n	K2 50		K2 20		n	FEN		TRA	
		-	+	-	+		-	+	-	+
0% Cut-off	10	10	0	10	0	30	30	0	30	0
-50% Cut-off	10	10	0	10	0	30	30	0	30	0
-25% Cut-off	10	10	0	10	0	30	30	0	30	0
Cut-off	10	0	10	0	10	30	2	28	2	28
+25% Cut-off	10	0	10	0	10	30	0	30	0	30
+50% Cut-off	10	0	10	0	10	30	0	30	0	30

Drug concentration Cut-off Range	n	KET	
		-	+
0% Cut-off	30	30	0
-50% Cut-off	30	30	0
Cut-off	30	0	30
+50% Cut-off	30	0	30

Analytical Specificity

The following table lists the concentration of compounds (ng/mL) that were detected positive in urine by the ***One Step Drug of Abuse Test*** at a read time of 5 minutes.

Drug	Concentration (ng/ml)
AMPHETAMINE (AMP 1000)	
d-amphetamine	1,000
D,l-amphetamine	1,000
l-amphetamine	20,000
Phentermine	1,250
(+/-)-Methylenedioxyamphetamine	1,500
AMPHETAMINE (AMP 500)	
d-amphetamine	500
D,l-amphetamine	750
l-amphetamine	16,000
Phentermine	650
(+/-)- Methylenedioxyamphetamine	800
AMPHETAMINE (AMP 300)	
d-amphetamine	300
D,l-amphetamine	500
l-amphetamine	10,000
Phentermine	400
(+/-)-Methylenedioxyamphetamine	500
BARBITURATES (BAR)	
Secobarbital	300
Amobarbital	300
Alphenol	150
Aprobarbital	200
Butabarbital	75
Butalbital	2,500
Butethal	100
Cyclopentobarbital	600
Pentobarbital	300
Phenobarbital	100
BENZODIAZEPINES (BZO)	
a-Hydroxyalprazolam	1,260
Alprazolam	200
Bromazepam	1,560
Chlordiazepoxide	1,565
Chlordiazepoxide HCl	780
Clobazam	100
Clonazepam	785
Clorazepate Dipotassium	195
Delorazepam	1,560
Desalkylflurazepam	390
Diazepam	195
Estazolam	2,500
Flunitrazepam	385
(±) Lorazepam	1,560
RS-Lorazepam glucuronide	160
Midazolam	12,500
Nitrazepam	95
Norchlordiazepoxide	200

COCAINE (COC 300)	
Benzoylecgonine	300
Cocaethylene	300
Cocaine	300
Metoclopramide	80,000
Procaine	75,000
COCAINE (COC 150)	
Benzoylecgonine	150
Cocaethylene	2,500
Cocaine	1000
MARIJUANA (THC 50)	
11-nor-Δ^9-THC-9-COOH	50
11-Hydroxy-Δ^9-Tetrahydrocannabinol	5,000
11-nor-Δ^9-THC-9-COOH	50
11-Nor-Δ^9-Tetrahydrocannabinol-9 Carboxylic Glucuronide	2,500
Δ^8-THC	20,000
Δ^9-THC	20,000
MARIJUANA (THC 20)	
11-nor-Δ^9-THC-9-COOH	20
11-nor-Δ^9-THC-9-COOH	50
Cannabinol	15,000
Δ^9-THC	10,000
Δ^8-THC	10,000
METHADONE (MTD)	
Methadone	300
Doxylamine	50,000
METHAMPHETAMINE (mAMP 1000)	
(+/-)-3,4-Methylenedioxy-N-ethylamphetamine	20,000
Procaine (Novocaine)	60,000
Trimethobenzamide	20,000
+/-methamphetamine	1,000
+methamphetamine	1,000
Ranitidine (Zantac)	50,000
Methylenedioxymethamphetamine	2,500
METHAMPHETAMINE (mAMP 500)	
d-methamphetamine	500
D,l-Methamphetamine	1,000
lRanitidine	500,000
Procaine	200,000
Methylenedioxyamphetamine	90,000
Methylenedioxymethamphetamine	2,500
3,4-Methylenedioxy-n-ethylamphetamine	10,000
METHYLENEDIOXYMETHAMPHETAMINE (MDMA)	
D,L-3,4-Methylenedioxymethamphetamine	500
3,4-Methylenedioxyamphetamine	3,000
(+/-)-3,4-Methylenedioxy-N-ethylamphetamine	300
OPIATES (OPI 300, MOP, MOR)	
6-acetylmorphine	500
Codeine	100
Eserine (Physostigmine)	15,000
Ethylmorphine	100
Heroin	500
Hydromorphone	2,000

Hydrocodone	1,250
Morphine	300
Morphine-3-glucuronide	75
Oxycodone	75,000
Thebaine	13,000
OPIATES (OPI 2000)	
6-acetylmorphine	1,000
Codeine	800
Ethylmorphine	400
Heroin	10,000
Hydromorphone	2,000
Hydrocodone	5,000
Morphine	2,000
Morphine-3-glucuronide	1,000
Oxycodone	50,000
Thebaine	26,000
OXYCODONE (OXY)	
Oxycodone	100
Codeine	50,000
Dihydrocodeine	12 500
Ethylmorphine	25,000
Hydrocodone	1,580
Hydromorphone	12,500
Oxymorphone	1,580
Thebaine	50,000
PHENCYCLIDINE (PCP)	
Phencyclidine	25
4-Hydroxy PCP	90
PCP Morpholine	625
PROPOXYPHENE (PPX)	
Norpropoxyphene	300
Propoxyphene	300
TRICYCLIC ANTIDEPRESSANTS (TCA)	
Nortriptyline	1,000
Amitriptyline	1,500
Clomipramine	12,500
Desipramine	200
Doxepin	2,000
Imipramine	400
Maprotiline	2,000
Nordoxepin	1,000
Promazine	1,500
Promethazine	2,500
Trimipramine	3,000
2-ETHYLIDENE-1,5-DIMETHYL-3,3-DIPHEYLPYRROLIDINE (EDDP)	
EDDP	300
Phencyclidine	50,000
Disopyramide	50,000
Mianserin	100,000
Tramadol	100,000
Venlafaxine hydrochloride	100,000
6-ACETYLMORPHINE (6-ACM)	
6-Acetylmorphine	10
Morphine	40
Bilirubin	3 500

Codeine	10
Diacetylmorphine	50
Ethylmorphine	24
Hydrocodone	100
Hydromorphine	100
Levorphanol	400
Morphine3-β-D-Glucuronide	50
Nalorphine	10,000
Normorphine	12,500
Norcodeine	15,000
Oxycodone	25,000
Oxymorphone	25,000
Thebaine	1,500
COTININE (COT)	
(-)-Cotinine	200
(-)-Nicotine	6,250
SYNTHETIC CANNABINOID (K2)	
JWH-018 5-pentanoic acid metabolite	20
JWH-073 4-butanoic acid metabolite	20
MAM2201 N-pentanoic acid metabolite	200
JWH-398 N-pentanoic acid metabolite	400
JWH-210 N-(5-carboxypentyl) metabolite	2,500
JWH-073 3-hydroxybutyl metabolite	2,500
JWH-018 N-4-hydroxypentyl	8,000
JWH-073 4-hydroxybutyl metabolite	40,000
JWH-019 5-hydroxyhexyl metabolite	40,000
JWH-018 5-hydroxypentyl metabolite	45,000
JWH-122 5-hydroxypentyl metabolite	50,000
JWH-122 4-hydroxypentyl metabolite	50,000
JWH-019 6-hydroxyhexyl metabolite	50,000
RCS-4 N-(5-carboxypentyl) metabolite	50,000
Trifluoperazine dihydrochloride	50,000
Trifluoperazine hydrochloride	70,000
2,4,6-Trimethylbenzamide	100,000
KETAMINE (KET)	
Ketamine	1,000
Methadone	100,000
Meperidine	30,000
Methamphetamine	40,000
Methoxyphenamine	20,000
D-methamphetamine	40,000
Promethazine	50,000
Phencyclidine	10,000
Bupivacaine	20,000
Disopyramide	100,000
Eserine	70,000
Glutathione reduced	50,000
Mianserin	30,000
Naphazoline hydrochloride	20,000
Nomifensine	100,000
Prilocaine	50,000
Promazine	100,000
Pyrilamine	50,000
Thioridazine hydrochloride	100,000
Benzthiazide	100,000
Picrotoxin	10,000
Phenyltoloxamine	100,000
2,4,6-Trimethylbenzamide	100,000

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Nordiazepam	390
Oxazepam	300
Temazepam	100
Triazolam	2,500
BUPRENORPHINE (BUP)	
Buprenorphine	10
Norbuprenorphine	20
FENTANYL (FEN)	
Fentanyl	200
TRAMADOL (TRA)	
Tramadol	50
ETHYL GLUCURONIDE (ETG)	
Ethyl-β-D-glucuronide	300

The following substances may interfere with the alcohol test: strong oxidizers, ascorbic acid, tannic acid, polyphenolic compounds, mercaptans, uric acid, bilirubin, oxalic acid and so on, but these compounds are not normally present in sufficient amount in urine to interfere with the test.

EFFECT OF URINARY SPECIFIC GRAVITY

Fifteen (15) urine samples of normal, high, and low specific gravity ranges (1.005, 1.015, 1.03) were spiked with drugs at 50% below and 50% above cut-off levels respectively. The ***One Step Drug of Abuse Test*** was tested in duplicate using ten drug-free urine and spiked urine samples. The results demonstrate that varying ranges of urinary specific gravity do not affect the test results.

EFFECT OF THE URINARY PH

The pH of an aliquoted negative urine pool was adjusted to pH ranges of 4.0 ,4.5, 5.0, 6.0 and 9.0, and spiked with drugs at 50% below and 50% above cut-off levels. The spiked, pH-adjusted urine was tested with the ***One Step Drug of Abuse Test***. The results demonstrate that varying ranges of pH do not interfere with the performance of the test.

INTERFERENCE

A study was conducted to determine the cross-reactivity of the test with compounds in either drug-free urine or drug positive urine containing Cocaine, Barbiturates, Benzodiazepines, Amphetamine, Methamphetamine, Marijuana, Methadone, MDMA (Ecstasy), Opiate, Oxycodone, Phencyclidine, Morphine, EDDP (Methadone Metabolites), 6-Acetylmorphine, Buprenorphine, Propoxyphene, Tricyclic Antidepressants, Cotinine, Synthetic Cannabinoid, Ketamine, Fentanyl, Tramadol or Ethyl Glucuronide. The following compounds show no cross-reactivity when tested with the ***One Step Drug of Abuse Test*** at concentrations of 100 µg/mL.

Cocaine, Benzodiazepines, Amphetamine, Methamphetamine, Marijuana, Opiate, Morphine, Oxycodone, Phencyclidine, Barbiturates, Buprenorphine, Propoxyphene, EDDP (Methadone Metabolites), 6-Acetylmorphine, Ketamine, Non Cross-Reacting Compounds.

*Parent compound only:

Acetaldehyde
Acetaminophen
Acetamidophenol (N-Acetyl-p-aminophenol)
Acetazolamide
Acetone
Acetophenetidin
Acetopromazine
N-Acetyl-L-cysteine
N-Acetylprocainamide (Acedainide)
Acetylsalicylic Acid (Aspirin)
Albumin, standard
Allobarbital (Diallybarbituric Acid)
Allopurinol
(4-Hydroxypyrazole) (3,4- pyrimidine)
Alprenolol
Amantadine (Adamantan-1-amine)
Amcinonide
Amikacin
Amiloride
p-Aminobenzoic Acid
Amiodarone
Amitryptyline
Ammonium Chloride
Amoxicillin
Amphotericin B
Ampicillin
Aniline
Antipyrine
Apomorphine
L-Ascorbic Acid
ASP-PHE-Methyl-Ester (Aspartame)
D-Aspartic Acid
DL-Aspartic Acid
L-Aspartic Acid
Baclofen
Barbituric Acid
Beclomethasone
Beclomethasone Dipropionate
Bendroflumethiazide
Benzidine
Benzilic Acid diethylaminoethyl ester
Benzocaine
Benzoic Acid
Benzphetamine
Benzthiazide
Benztropine
Benzyl alcohol
Benzylamine
Berberine
Betamethasone
Bilirubin
Brompheniramine
Bumetanide
Buspirone
Butacaine
Butyrophenone
Caffeine
Camphor
Canrenoic Acid
Captopril
Carbamazepine
Carbamyl-Carboplatin
Carisoprodol
Cefaclor
Cefadroxil
Cefotaxime
Cefoxitin
Ceftriaxone
Cefuroxime
Cephalexin
Cephaloridine
Cephradine
Chloramphenicol
Chlorcyclizine
Chloroquine
Chlorothiazide
Chlorotrianisene
Chlorpheniramine
Chlorpromazine
Chlorpropamide
Chlorprothixene
Chlorthalidone
Chlorzoxazone
Cholesterol
Cimetidin
Cinchonidine
Cinoxacin
Clemastine
Clenbuterol
Clindamycin
Clobetasone Butyrate
Clomipramine
Clonidine
Cloxacillin
Clozapine
Colchicine
Cortisone
Cortol
Creatinine
Cromolyn
Cyclobenzaprine
Cyclophosphamide
Cyclosporin A
Cyproheptadine
Dantrolene
Deferoxamine Mesylate
Deoxyepinephrine
Desipramine
Desmethyldiazepam
Desoximetasone
Dexamethasone
Dextromethorphan
Diazoxide
Dichloromethane
Dichlorphenamide
Diclofenac
Dicyclomine
Dieldrin
Diflorasone Diacetate
Diflucortolone pivalate
Diflunisal
Digitoxin
Digoxin
Dihydroxymandelic Acid
Dimenhydrinate
Dimercaprol
Dimethylaminoantipyrin
Dimethyl Isosorbide
Dimethyl Sulfoxide
Diphenhydramine
Dipyridamole
Dipyrone
Dobutamine
Doxepin
Doxycycline
Doxylamine
Droperidol
Ecgonine
Ecgonine Methyl Ester
Emetine
Ephedrine
Epinephrine
Erythromycin
Estradiol
Estriol
Estrone
Glucuronide
Estrone-3-Sulfate
Ethacrynic Acid
Ethambutol
Ethamivan
Ethanol, Standard
Ethopropazine
Ethosuximide
Phenylnalonamide
Ethylene Glycol
Ethylenediamine
Tetraacetic Acid
Etodolac
Etoposide
Famotidine
Fenfluramine
Fenoprofen
Fentanyl
Ferrous Sulfate
Flufenamic Acid
Flunisolide
Fluphenazine
Flurandrenolide
Flurazepam
Flurbiprofen
Formaldehyde
Furosemide
Gemfibrozil
Gentamicin Sulfate
Gentisic Acid
Glucose
Glybenclamide
Griseofulvin
Guaiacol Glyceryl Ether
Guanethidine
Halcinonide
Haloperidol
Hemoglobin
Hexachlorocyclohexane
Hexachlorophene
Hexobarbital
Hippuric Acid
Histamine
DL-Homatropine
Hydrastine
Hydrochlorothiazide
Hydrocortisone
Hydrocarbalamine
Hydroflumethiazide
Hydroxyhippuric Acid
Hydroxyzine
Ibuprofen
Indapamide
Indomethacin
Ipratropium Bromide
Iproniazid
Isonicotinic Acid
Isopropamide
Isoxsuprine
Kanamycin
Ketoprofen
Kynurenic Acid
Labetalol
Levorphanol
Lidocaine
Lisinopril
Lithium Carbonate
Loperamide
Lormetazepam
Lysergic Acid Diethylamide (LSD)
Mebendazole
Meclizine
Meclofenamic Acid
Medazepam
Mefenamic Acid
Melanin
Melphalan
Menthol
Meperidine
Mephenesin
Mephentermine
Meprobamate
Metaproterenol
Metaraminol
Methadone
Methanol, Absolute
Methaqualone
Methazolamide
Methotrimeprazine
Methoxamine
Naproxen
Methoxyamine
Hydroxyprogesterone
Methylene Blue
Methylphenidate (Ritalin)
Methyl Salicylate
Meticrane
Metronidazole
Milrinone
Minaprine
Nabumetone
Nadolol
Nafcillin
Nalbuphine
Nalidixic Acid
Nalmefene
Nalorphine
Naloxone
Naltrexone
Naphthalene Acetic Acid
Naphthol
Neomycin Sulfate
Niacinamide
Nialamide
(+/-) Nicotine
Nicotinic Acid
Nifedipine
Nitrofurantoin
Norclomipramine
Norcocaine
Norcodeine
Nordoxepin
Norethindrone
Norfloxacin
Normorphine
Noscapine
Nylidrin
Orphenadrine
Oxalic Acid
Oxolinic Acid
Oxprenolol
Oxymetazoline
Oxyphenbutazone
Oxypurinol
Paclitaxel
Pancuronium Bromide
Papaverine
Pargyline
Penicillin
Pentachlorophenoll
Pentoxifylline
Pentylenetetrazole
p-Phenylenediamine
Phenelzine
Phenformin
Pheniramine
Phenol
Phenolphthalien
Phenothiazine
Phenoxymethyl
Penicillinic acid (Penicillin V)
Phentolamine
Phenylbutazone
Phenylethylamine
Phenylpropanolamine
Pilocarpine
Pimozide
Pinacidil
Pindolol
Pipecolic Acid
Pipedemic Acid
Piroxicam
Potassium Chloride
Potassium Iodide
Prazepam
Prazosin
Prednisone
Primaquine
Primidone
Proadifen
Probenecid
Procainamide
Prochlorperazine
Procyclidine
Promazine
Propionylpromazine
Protriptyline
Pseudoephedrine
Pyridine-2-Aldoxime
Pyridoxine
Quinidine
Quinine
Quinolinic Acid
Ranitidine
Rescinnamine
Reserpine
Riboflavin
Ritodrine
Salbutamol (Albuterol)
Salicylic Acid
Sodium Chloride
Sodium Formate
Sulfamethazine
Sulfamethoxazole
Sulfanilamide
Sulfathiazole
Sulfisoxazole
Sulindac
Talbutal
Tannic Acid
Terbutaline
Terfenadine
Tetracycline
Theobromine
Theophylline
Thiamine
Tobramycin
Tolazamide
Tolbutamide
Tolmetin
Toluene
Trazodone
Triamcinolone
Triamterene
Trichlormethiazide
Trichloroacetic acid
Trimethoprim
Trimipramine
Triprolidine
Tropic Acid
Tropine
Tryptamine
Tyramine
Urea (Carbamide)
Uric Acid
Vancomycin
Vincamine
Xylometazoline
Yohimbine
Zearalenone
Zomepirac
Zopiclone

Methadone Non Cross-Reacting Compounds

*Parent compound only:

Acebutolol
Acetaldehyde
Acetaminophen Acetazolamide
Acetone
Acetophenetidin
N-Acetylprocainamide (Acedainide)
Acetylsalicylic Acid (Aspirin)
Aminopyrine
Amitryptyline
Ammonium Chloride
Amobarbital
Amoxicillin
Amphotericin B
Ampicillin
Aniline
Antipyrine
DL-Amphetamine sulfate
DL-Aspartic Acid
L-Aspartic Acid
Apomorphine
Aprobarbital
Aspartame
Atropine
Barbituric Acid
Benzidine
Benzilic Acid Benzocaine
Benzoic Acid
Benzoylecgonine
Benzphetamine
Benzthiazide
Bilirubin
Bisacodyl
Bromazepam
2-Bromo-a -ergocryptine
Brompheniramine
Caffeine
Cannabidiol

Cannabino
Chloramphenicol
Chlorcyclizine
Chlordiazepoxide
Chloroquine
Chlorothiazide
Chlorotrianisene
Chlorpheniramine
Chlorpromazine
Dimercaprol
Dimethylaminoantipyrin
Dimethyl Isosorbide
Dimethyl Sulfoxide
Disopyramide
Dobutamine
Doxepin
Doxycycline
Ecgonine
Ecgonine Methyl Ester
Emetine
Ephedrine
Epinephrine
Erythromycin
Estriol
Estrone
Ethyl-p-aminobenzoate
Etodolac
Etoposide
Famotidine
Fenfluramine
Ferrous Sulfate
Flufenamic Acid
Flunisolide
Formaldehyde
Furosemide
Gemfibrozil
Gentamicin Sulfate
Gentisic Acid
Glucose
Hemoglobin
Hydralazine
Hydrastine
Hydrochlorothiazide
Hydrocodone
Hydrocortisone
Hydrocarbalamine
Hydroflumethiazide
Hydroxyhippuric Acid
p-Hydroxyamphetamine
Hydroxyzine
Ibuprofen
Imipramine
Indapamide
Indomethacin
Ipratropium Bromide
Iproniazid
Isonicotinic Acid
Isopropamide
Isoxsuprine
Kanamycin
Ketamine
Ketoprofen
Kynurenic Acid
Labetalol
Levorphanol
Loperamide
Meperidine
Mephentermine
Methoxyphenamine
Hydroxyprogesterone
Methylphenidate (Ritalin)
Methyl Salicylate
Nabumetone
Nadolol
Nafcillin
Nalidixic Acid
Nalmefene
(+/-) Nicotine
Nicotinic Acid
Nifedipine
Nitrazepam
Noscapine
Oxycodone
Oxymetazoline
Oxyphenbutazone
Oxypurinol
Paclitaxel
Pancuronium Bromide
Papaverine
Pargyline
Penicillin
Pentachlorophenol
Pentobarbital
Pentoxifylline
Pentylenetetrazole
p-Phenylenediamine
Phenelzine
Phenformin
Pheniramine
Phenobarbital
Phenol
Phenolphthalien
Phenothiazine
Phenoxymethyl
Penicillinic acid (Penicillin V)
Phentolamine
Phenylbutazone
Phenylethylamine
Phenylpropanolamine
Phenyltoloxamine
Picrotoxin
Pilocarpine
Pimozide
Pinacidil
Pindolol
Pipecolic Acid
Pipedemic Acid
Piroxicam
Potassium Chloride
Potassium Iodide
Prazepam
Prazosin
Prednisone
Prilocaine
Primaquine
Primidone
Proadifen
Probenecid
Procainamide
Prochlorperazine
Procyclidine
Promazine
Promethazine
Propionylpromazine
Protriptyline
Pseudoephedrine
Pyridine-2-Aldoxime
Pyridoxine
Pyrilamine
Quinidine
Quinine
Quinolinic Acid
Oxazepam
Ranitidine
Rescinnamine
Reserpine
Riboflavin
Ritodrine
Salbutamol (Albuterol)
Salicylic Acid
Secobarbital
Sodium Chloride
Sodium Formate
Sulfamethazine
Sulfamethoxazole
Sulfanilamide
Sulfathiazole
Sulfisoxazole
Sulindac
Talbutal
Tamoxifen
Tannic Acid
Tenoxicam
Terbutaline
Terfenadine
Tetracycline
Tetraethylthiuram
Tetrahydrozoline
Theobromine
Theophylline
Thiamine
Thioridazine
Tobramycin
Tolazamide
Tolbutamide
Tolmetin
Toluene
Trazodone
Triamcinolone
Triamterene
Triazolam
Trichlormethiazide
Trichloroacetic acid
Trifluoperazine
Triflupromazine
Trimethobenzamide
Trimethoprim
Trimipramine
Triprolidine
Tropic Acid
Tropine
Tryptamine
Tyramine
Urea (Carbamide)
Uric Acid
Vancomycin
Vincamine
Xylometazoline
Yohimbine
Zearalenone
Zomepirac
Zopiclone

Tricyclic Antidepressants Non Cross-Reacting Compounds

*Parent compound only:

4-Acetamidophenol
Acetophenetidin
N-Acetylprocainamide
Acetylsalicylic acid
Aminopyrine
Amobarbital
Amoxicillin
DL-Amphetamine
Ampicillin
Ascorbic acid
Apomorphine
Aspartame
Atropine
Benzilic acid
Benzoic acid
Benzoylecgonine
Benzphetamine
Bilirubin
Brompheniramine
Caffeine
Cannabidiol
Cannabinol
Chloralhydrate
Chloramphenicol
Chlordiazepoxide
Chlorothiazide
(±) Chlorpheniramine
Chlorpromazine
Chlorquine
Cholesterol
Clonidine
Cocaine hydrochloride
Codeine
Cortisone
(-) Cotinine
Creatinine
Deoxycorticosterone
Dextromethorphan
Diazepam
Diclofenac
Diflunisal
Digoxin
Diphenhydramine
Doxylamine
Ecgonine hydrochloride
Ecgonine methylester
(IR,2S)-(-)-Ephedrine
L-Ephedrine
(-) Y Ephedrine
Erythromycin
ß-Estradiol
Estrone-3-sulfate
Ethyl-p-aminobenzoate
Fenoprofen
Furosemide
Gentisic
Hemoglobin
Hydralazine
Hydrochlorothiazide
Hydrocodone
Hydrocortisone
p-Hydroxyamphetamine
O-Hydroxyhippuric
p-Hydroxy-methamphetamine
3-Hydroxytyramine
Ibuprofen
Iproniazid
(-) Isoproterenol
Isoxsuprine
Ketamine
Ketoprofen
Labetalol
Levorphanol
Loperamide
Meperidine
Meprobamate
Methadone
D-methamphetamine
Methoxyphenamine
3,4-Methylene-dioxyethylamphetamine
(+)3,4-Methylene-dioxymethamphetamine
Methylphenidate
Morphine-3-ß-D-glucuronide
Morphine sulfate
Nalidixic acid
Naloxone
Naltrexone
Naproxen
Niacinamide
Nifedipine
Norcodein
Norethindrone
D-Norpropoxyphene
Noscapine
D,L-Octopamine
Oxalic acid
Oxazepam
Oxolinic acid
Oxycodone
Oxymetazoline
Papaverine
Penicillin-G
Pentazocine
Pentobarbital
Perphenazine
Phencyclidine
Phenelzine
Phenobarbital
Phentermine
Trans-2-Phenyl-cylopropylamine-hydrochloride
ß-Phenylethlamine
Phenylpropanolamine
Prednisolone
Prednisone
Procaine
Promethazine
D,L-Propanolol
D-Propoxyphene
D-Pseudoephedrine
Quinidine
Quinine
Ranitidine
Salicylic acid
Secobarbital
Serotonin (5-Hydroxytyramine)
Sulfamethazine
Sulindac
Temazepam
Tetracycline
Tetrahydrocortisone, 3
Acetate
Tetrahydrocortisone 3 (ß-D-glucuronide)
Tetrahydrozoline
Thiamine
Thioridazine
Tolbutamine
Triamterene
Trifluoperazine
Trimethoprim
D, L-Tryptophan
Tyramine
D, L-Tyrosine
Uric acid
Verapamil
Zomepirac

Methylenedioxymethamphetamine Non Cross-Reacting Compounds

*Parent compound only:

Acetaldehyde
Acetaminophen
Acetazolamide
Acetone
Albumin
Albuterol
Ammonium
Amphotericin B
Ampicillin
Amtriptyline
Apomorphine
Ascorbic Acid
Aspartate
Aspirin
Atenolol
Atropine
Beclomethasone
Benzocaine
Benzoic Acid
Bilirubin
Bupropion
Buspirone
Caffeine
Captopril
Carbamazepine
Cefaclor
Cemetidine
Chloramphenicol
Chlordiazepoxide
Chloroquine
Chlorothiazide
Chlorpheniramine
Chlorpromazine
Chlorpropamide
Cholesterol
Clindamycin
Clonidine
Clozapine
Colchicine
Cortisone
Creatinine
Deoxycorticosterone
Desipramine
Dextromethorphan
Diazepam
Digoxin
Diphenhydramine
Dipyridamole
Doxycycline
Erythromycin
Estradiol
Estriol
Estrone
Ethanol
Ethylene Glycol
Epinepherine
Ferrous Sulfate
Furosemide
Gentamycin
Glucose
Haloperidol
Hemoglobin
Hydralazine
Hydrocortisone
Hydroxycarbalamine
Hydroxyprogesterone
Hydroxyzine
Ibuprofen
Indomethacin
Lidocaine
Lisinopril
Lithium
Loperamide
Lorazepam
Lsd
Metronidazole
Naproxen
Niacinamide
Nicotine
Nifedipine
Nitrofurantoin
Nortriptyline
Ofloxacin
Oxalic Acid
Penicillin G
Pentobarbital
Phenobarbital
Prednisolone
Prednisone
Prochloperazine
Promethazine
Propoxyphen
Propranolol
Prozac (fluoxetin)
Pseudoephedrine
Pyroxidine
Quinidine
Ranitidine
Riboflavin
Salicylic Acid
Sidenafil (viagra)
Sodium Chloride
Sulfamethoxazole
Sulindac
Temazepam
Tetracycline
Tetrahydrocortisone
Theophyline
Thiamine
Thioridazine
Thyroxine
Tobutamide
Trazodone
Trimethoprim
Tryptophan
Tyrosine
Urea
Uric Acid
Valproic Acid
Verapamil
Zoloft

PN: Y031141702

Cotinine Non Cross-Reacting Compounds
*Parent compound only:

Acetone
Acetophenetidin
Albumin
Amitryptyline
Amobarbital Amoxicillin
L-amphetamine
Ampicillin
Apomorphine
Aspartame
Atropine
Benzoic Acid
Benzoylecogonine
Benzyl Alcohol
Bilirubin
Brompheniramine
Buspirone
Caffeine
Cannabidiol
Captopril
Chloral Hydrate
Chloramphenicol
Chlordiazepoxide
Chloroquine
(+)-Chlorpheniramine
(±)Chlorpheniramine
Chlorpromazine
Chlorprothixene
Cholestrol
Cimetidine
Clomipramine
Clonidine
Cocaine
Codeine
Cortisone
Creatinine
Cyclobarbital
Cyclobenzaprine
Deoxycorticosterone
Delorazepam
Desoximetasone
Dextromethorphan
Diazepam
Dipyrone
Digoxin
4-Dimethylaminoantipyrine
Diflunisal
5,5-Diphenylhydantoin
Disopyramide
Doxylamine
Ecgonine Methylester
EDDP
Ephedrine
Erythromycin
B-Estradiol
Ethanol
Ethyl-p-aminobenzoate
Etodolac
Fenfluramine
Fenoprofen
Furosemide
Gentisic acid
d (+) Glucose
Hydralazine
Hydrochlorothiazide
Hydrocodone
Hydrocortisone
Hydromorphone
(+/-)-4-Hydroxyamphetamine HCL
o-Hydroxyhippuric acid
p-Hydroxymethamphetamine
(1R,9S)-(-)-β-Hydrastine
Hydroxyzine 3-Hydroxytyramine
Ibuprofen
Imipramine
Imidazole
(-)Isoproterenol
Isoxsuprine
Ketamine
Labetalol
l-Ascorbic acid
l-Epinephrine
Levorphanol Lidocaine
Lisinopril
Loperamide
Maprotiline
Meperidine
Mefenamic Acid
Meprobamate
Methadone
d-Methamphetamine
l-Methamphetamine
Methoxyphenamine
MDA*
MDMA**
Methylphenidate
Morphine Sulfate
Nalorphine
Naloxone
Naltrexone
Nimesulide
Norethindrone
d-Norpropoxyphene
Noscapine
d,l-Octopamine
Orphenadrine
Oxalic acid
Oxazepam
Oxypurinol
Oxycodone
Oxymetazoline
Oxymorphone
Papaverine
Paracetamol
Penicillin-G
Pentobarbital
Perphenazine
Phenylephrine-L
Phencyclidine
Phenelzine
Pheniramine
Phenobarbital
Phenothiazine
Phentermine
B-Phenylethylamine
(±)Phenylpropanolamine
Prednisolone
Procaine
Promazine
Promethazine
Propranolol
d-Propoxyphene
Pseudoephedrine
Quinacrine
Quinidine
Quinine
Ranitidine
Riboflavin
Salicylic acid
Secobarbital
Serotonin
Sodium Chloride
Sulfamethazine
Sulindac
Temazepam
Tetracycline
Tetrahydrocortisone
Tetrahydrozoline
Thebaine
Theophylline
Thiamine
Thioridazine
l-Thyroxine
Tramadol
Trazodone
Trifluoperazine
Trimethoprim
Tryptamine
d,l-Tryptophan
Tyramine
d,l-Tyrosine
Uric Acid
Zomepirac
*MDA=3,4-Methylenedioxyamphetamine
**MDMA =3,4-Methylenedioxymethamphetamine

Synthetic Cannabinoid Non Cross-Reacting Compounds
*Parent compound only:

(-)-11-nor-9-carboxy-delta-9-THC
(-)-delta-9-THC
(+/-) Nicotine
(+/-)-11-nor-9-carboxy-delta-9-THC
(+/-)-4-Hydroxyamphetamine HCL
(1R,9S)-(-)-β-Hydrastine
11-Hydroxy-delta-9-THC
1-Naphthylacetic Acid1
2,3-Pyridine Dicarboxylic Acid
4-Metylumbelliferyl B-D-Glucuronide Hydrate
5,5-Diphenylhydantoin
Acebutolol
Acetaminophen
Acetazolamide
Acetone
Acetophenetidin
Acetopromazine－d6
Acetyl-L-Cysteine
Acetylsalicylic Acid (Aspirin)
a-Chymotrypsin
a-Hydroxyalprazolam
a-Hydroxyhippuric Acid
Albumin, Human Recombinant
Allopurinol
Alphenal
Alprazolam
Alprenolol Hydrochloride
Amantadine Hydrochloride
Amikacin
Amikacin Sulfate
Amiloride
Aminophenazon
Aminophylline
Amiodarone Hydrochloride
Amitriptyline
Ammonium Chloride
Amobarbital
Amoxicillin
Amphetamine Sulfate
Amphotericin B
Ampicinine(Ampicillin)
Anamycin Sulfate
Aniline
Antipyrine
Apomorphine
Aprobarbital
Aspartame
Atenolol
Atropine
Baclofen
Barbituric Acid
Beclometasone Dipropionate
Beclomethasone
Bendroflumethiazide
Benzalkonium Bromide
Benzilic Acid
Benzocaine
Benzoic Acid
Benzoylecogonine
Benzphetamine
Benzthiazide
Benzyl Alcohol
Benzylamine Hydrochloride
Berberine
Betamethasone
Bilirubin
Bisacodyl
Bromazepam
Bromocriptine Mesylate
Bupivacaine
Buprenorphine
Bupropion Hydrochloride
Buspirone
Butabarbital
Butacaine
Butalbital
Butethal
Butyrophenone
Caffeine
Camphor
Cannabidiol
Canrenoic Acid
Captopril
Carbamazepine
Carisoprodol
Cefaclor
Cefadroxil
Cefotaxime
Cefoxitin
Cefradine Capsules
Ceftriaxone
Cefuroxime Axetil (Zinnat)
Cephradine
Cetirizine Hydrochloride
Chloral Hydrate
Chloramphenicol
Chlordiazepoxide HCL
Chloroquine
Chlorothiazide
Chlorotrianisene
Chlorpheniramine
Chlorpromazine
Chlorpropamide
Chlorprothixene
Chlorthalidone
Chlorzoxazone
Cholesterol
Cicosporin
Cimetidine
Cinchonidine
Cinoxacin
Citric Acid
Clenbuterol Hydrochloride
Clindamycin
Clobazam
Clobetasone Butyrate
Clomipramine
Clonazepam
Clonidine Hydrochloride
Clorazepate Dipotassium
Cloxacillin
Clozapine
Cocaethylene
Cocaine Hydrochloride
Codeine
Colchicine
Compound Zinc Undec
Cortisone
Cotinine
Creatinine
Cyclobenzaprine Hydrochloride
Cyclopentobarbital
Cyclophosphamide
Cyproheptadine Hydrochloride
D/L-Tyrosine
Dantrolene Sodium
D-Aspartic Acid
Deferoxamine Mesylate
Delta-8-THC
Deoxyepinephrine
Desipramine
Desoximetasone
Dexamethasone
Dextromethorphan Hydrobromide
Diazepam
Diazoxide
Dieldrin
Diflorasone Diacetate
Diflunisal
Digoxin
Dihydralazine
Dimethyl Isosorbide
Dimethyl Sulfoxide
Dipyridamole
Dipyrone
Disopyramide
DL-3,4-Dihydroxymandelic Acid
DL-Aminoglutethimide
DL-Aspartic Acid
DL-Tryptophan
D-Methamphetamine
Dobutamine
Dopamine
Doxepin
Doxycycline Hytclate
Doxylamine
Droperidol
Ecgonine Methylester
Emetine Dihydro-Chloride Hydrate
Ephedrine-(+/-)
Erythromycin
Eserine
Estazolam
Estradiol,17B-
Estriol
Estrone
Estrone-3-Sulfate
Ethacrynic Acid
Ethambutol
Ethyl Acetate
Ethylenediamine Tetraacetic Acid
Ethyl Morphine
Ethyl-p-aminobenzoate
Etodolac
Etoposide
Famotidine
Fenfluramine
Fenoprofen
Fentanyl Citrate Salt
Ferrous Sulfate
Flufenamic Acid
Flunisolide
Flunitrazepam
Fluphenazine Dihydrochloride
Flurandrenolide
Flurazepam
Furosemide
Gemfibrozil
Gentamicin Sulfate
Gentisic Acid
Glucose
Glutathione Reduced
Glybenclamide
Griseofulvin
Halcinonide
Haloperidol
Hemoglobin
Heroin
Hexachlorophene
Hippuric Acid
Histamine
Hydralazine
Hydrochlorothiazide
Hydrocodone
Hydrocortisone
Hydroflumethiazide
Hydromorphone
Hydroxocobalamin
Hydroxyprogesterone
Hydroxyurea
Hydroxyzine Dihydrochloride
Hypnoval（Cyclobarbital）
Hypoxanthine
Ibuprofen
Imidazole
Imipramine
Indapamide
Indomethacin
Ipratropium Bromide
Isonicotinic Acid
Isoproterenol-(+/-)
Isoxsuprine
JWH-210 4-hydroxypentyl metabolite
Ketamine

Kynurenic Acid
Labetalol
Lactose
L-Aspartic Acid
L-Cystine
Levorphanol
Lidocaine
Lisinopril
Lithium Carbonate
Loperamide
Lorazepam (±) /Lorazepam Glucuronide
L-Thyroxine
Mannitol
Maprotiline
Mebendazole
Meclofenamic Acid
Medazepam
Mefenamic Acid
Melanin
Menthol
Meperidine
Meprobamate
Merperidine
Metaproterenol HemisulfateSalt
Metaraminol
Methadone
Methamphetamine
Methoxamine
Methoxyamine Hydrochloride
Methoxyphenamine
Methyl Salicylate
Methylene Blue
Methylenedioxymethampheta mine-(+/-) 3/4（MDMA）
Methylphenidate
Meticrane
Metoclopromide Hydrochloride
Metronidazole
Mianserin
Midazolam
Milrinone
Minaprine
Morphine
Nabumetone
N-Acetylprocainamide
Nadolol
Nafcillin
Nalbuphine
Nalidixic Acid
Nalmefene
Nalorphine Hydrochloride
Naloxone Hydrochloride
Naltrexone Hydrochloride
Naphazoline Hydrochloride
Naphthol
Naproxen
Neomycin Sulfate
Niacinamide
Nialamide
Nicotinic Acid
Nifedipine
Nimesulide
Nitrazepam
Nitrofurantoin
Nomifensine
Norchlordiazepoxide
Norclomipramine
Norcocaine
Nordiazepam
Nordoxepin
Norethindrone
Norfloxacin
Norfludiazepam
Norpropoxyphene
Nortriptyline Hydrochloride
Noscapine
Nylidrin
O6-Acetylmorphine
Octopamine
Ofloxacin
Orphenadrine Hydrochloride
Oxalic Acid
Oxazepam
Oxycodone
Oxymetazoline
Oxymorphone
Oxyphenbutazone
Oxypurinol
Paclitaxel
p-Aminobenzoic Acid
Pancuronium Bromide
Papaverine
Paracetamol Tablets
Pargyline
PCP Morpholine Anolog
Penicillin
Pentobarbital
Pentoxifylline
Pentylenetetrazole
Perphenazine
Phenacetin
Phencyclidine (PCP)
Phenelzine
Phenformin
Pheniramine
Phenobarbital
Phenol
Phenolphthalien
Phenothiazine
Phentermine
Phenylbutazone
Phenylephrine-L
Phenylethylamine
Phenylpropanolamine
Phenyltoloxamine
p-Hydroxymethamphetamine
Picrotoxin
Pilocarpine
Pimozide
Pipecolic Acid
Piroxicam
Potassium Chloride
Potassium Iodide
p-Phenylene
Prazepam
Prazosin
Prednisolone Acetate
Prednisone
Prilocaine
Primaquine diphosphate
Primidone
Proadifen
Probenecid
Procainamide Hydrochloride
Procaine
Prochlorperazine Dimaleate Salt
Procyclidine
Promazine
Promethazine
Propionylpromazine
Propoxyphene,d-
Propranolol
Protriptyline
Pseudoephedrine HCL
Pyridine-2-Aldoxime
Pyridoxine
Pyrilamine
Quinacrine
Quinidine
Quinine
R(-)-Epinephrine
Ranitidine
Riboflavin
Ritodrine
Roxithromycin Tablets
Salbutamol (Albuterol)
Salicylic Acid
Secobarbital
Serotonin
Sertraline
Sodium Chloride
Sodium Cromoglicate
Sodium Formate
Stearic Magnesium
Sulfamethazine
Sulfamethoxazole
Sulfanilamide
Sulfathiazole
Sulindac
Tamoxifen Citrate
Tannic Acid
Temazepam
Tenoxicam
Terbutaline
Terfenadine
Tetracycline
Tetraethylthiuram Disulfide
Tetrahydrocannabinol, Delta-9-
Tetrahydrozoline
Thebaine
Theobromine
Theophylline
Thiamine
Thioridazine Hydrochloride
Tobramycin
Tolazamide
Tolbutamide
Tolmetin
Tramadol
Trans-2-Phenylcyclo-Propylamine Hydrochloride
Trazodone
Triazolam
Trichlormethiazide
Trichloroacetic Acid
Trimethoprim
Trimipramine
Triprolidine
Tropic Acid
Tropine
Tryptamine
Tyramine
Urea
Uric Acid
Vancomycin HCL
Vanillic acid Diethylamine
VB2
Venlafaxine Hydrochloride
Verapamil
Vincamine
Xylometazoline
Yohimbine
Zearalenone
Zomepirac
Zopiclone

Fentanyl Non Cross-Reacting Compounds:
*Parent compound only:

Acebutolol
Acetopromazine-d6
Acetyl-L-cysteine
Acetylsalicylic Acid (Aspirin)
Acetaminophen
O6-Acetylmorphine
Acetazolamide
N-Acetylprocainamide
Acetone
Acetophenetidin
Alprenolol hydrochloride
Alprazolam
Allopurinol
Alphenal
Amiloride
Aminophenazon
Amiodarone Hydrochloride Tablets
Ampicinine(Ampicillin)
Amitriptyline
Aminophylline
Amantadine Hydrochloride
Amphotericin B
Ammonium Chloride
Amphetamine Sulfate
Amikacin
Amikacin sulfate
p-Aminobenzoic Acid
DL-Aminoglutethimide
Anamycin sulfate
Aniline
Antipyrine
Apomorphine
Aprobarbital
Aspartame
L-Ascorbic Acid
L-Aspartic Acid
D-Aspartic Acid
DL-Aspartic Acid
Atropine
Baclofen
Benzphetamine
Barbituric Acid
Berberine
Benzocaine
Benzyl alcohol
Benzoylecogonine
Bendroflumethiazide
Benzylamine Hydrochloride
Bisacodyl
Bromazepam
Bupivacaine
Buprenorphine
Buspirone
Butacaine
Butabarbital
Buprenorphine-3 β-D-glucuronide
Butyrophenone
Butethal
Caffeine
Carbamazepine
Carisoprodol
Cefaclor
Ceftriaxone
Cefotaxime
Cefoxitin
Cefuroxime Axetil (Zinnat)
Cefadroxil
Cephradine
Chloroquine
Chlorpheniramine
Chlorpromazine
Chlorpropamide
Chlorprothixene
Chlorthalidone
Chlorzoxazone
Chloral Hydrate
Cimetidine
Cinchonidine
Cinoxacin
Cicosporin
Citric acid
Clenbuterol Hydrochloride
Clindamycin
Clobetasone Butyrate
Clomipramine
Clorazepate Dipotassium
Clonazepam
Clobazam
Cloxacillin
Cholesterol
(-)-Cotinine
Cocaethylene
Cocaine Hydrochloride
Codeine
Creatinine
Cyclobenzaprine Hydrochloride
L-Cystine
Cyproheptadine Hydrochloride
Cyclopentobarbital
Dantrolene sodium
Dextromethorphan hydrobromide
Dexamethasone
Deoxyepinephrine
Deferoxamine Mesylate
Desipramine
Dimethyl Isosorbide
Diazepam
Diflorasone Diacetate
Diflunisal
Diazoxide
Dieldrin
Dipyrone
5,5-Diphenylhydantoin
D,L-3,4-Dihydroxymandelic acid
Dihydralazine
Hemoglobin
Disopyramide
Dopamine
Dobutamine
Doxepin
Doxycycline Hytclate
Doxylamine
Droperidol
Ecgonine methylester
Ephedrine-(+/-)
Erythromycin
Eserine
Estazolam
Estradiol,17B-
Estriol
Estrone
Estrone-3-sulfate
Etoposide
Ethacrynic Acid
Ethambutol
Ethyl-p-aminobenzoate
Ethylenediamine Tetraacetic
Etodolac
EthylMorphine
Famotidine
Fenfluramine
Ferrous Sulfate
Fenoprofen
Flufenamic Acid
Flunitrazepam
Flunisolide
Flurandrenolide
Flurazepam
Furosemide
Gentamicin Sulfate
Glutathione reduced
Glybenclamide
Griseofulvin
Halcinonide
Heroin
Hexachlorophene
Hypnoval（Cyclobarbital）
Hippuric Acid
Histamine
Hydralazine
(1R,9S)-(-)-β-Hydrastine
Hydroflumethiazide
Hydromorphone
Hydrocodone
Hydroxocobalamin hydrochloride
ａ-Hydroxyhippuric acid
Hydroxyzine dihydrochlo-ride
a-Hydroxyalprazolam
Hydroxyprogesterone
p-Hydroxymethamphet-amine
Hydrocortisone
Hydrochlorothiazide
Ibuprofen
Imipramine
Imidazole
Indapamide
Indomethacin
Ipratropium Bromide
Isonicotinic Acid
Isoxsuprine

PN: Y031114170

Isoproterenol-(+/-)
Ketamine
Kynurenic Acid
Labetalol
Lactose
Levorphanol
Lidocaine
Lithium Carbonate
Lorazepam glucuronide
Mannitol
Maprotiline
Mebendazole
Meclofenamic Acid
Medazepam
Mefenamic Acid
Melanin
Meperidine
Meprobamate
Merperidine
Metaraminol
Methamphetamine
D-methamphetamine
o-Methoxyanime HCL
Methoxyphenamine
Methylene Blue
Methylphenidate
Meticrane
Metoclopromide Hydrochloride
Metronidazole
4-Metylumbelliferyl B-D-glucuronide hydrate
Mianserin
Milrinone
Minaprine
Morphine
Nabumetone
Nadolol
Nafcillin
Nalbuphine
Nalorphine hydrochloride
Naphthol
Naproxen
Naphazoline hydrochloride
1-Naphthylacetic acid1
Naloxone hydrochloride
Nalmefene
Neomycin Sulfate
Nialamide
Niacinamide
(+/-) Nicotine
Nimesulide
Nitrazepam
Nifedipine
Nicotinic Acid
Nitrofurantoin
Norchlordiazepoxide
Norclomipramine
Nordiazepam
Nordoxepin
Norfloxacin
Norethindrone
Norpropoxyphene
Noscapine
Nomifensine
Nortriptyline Hydrochloride
Nylidrin
Octopamine
Orphenadrine hydrochloride
Oxalic Acid
Oxazepam
Oxymetazoline
Oxyphenbutazone
Oxypurinol
Pancuronium Bromide
Papaverine
Paracetamol tablets
Paclitaxel
PCP Morpholine Anolog
Pentobarbital
Pentylenetetrazole
Pentoxifylline
Perphenazine
Phenelzine
Penicillin
Phenacetin
Phencyclidine(PCP)
Phenformin
Pheniramine
Phenobarbital
Phenothiazine
Phenol
Phenolphthalien
Phentermine
P-phenylene
Phenylephrine-L
Phenylbutazone
Phenylethylamine
Phenylpropanolamine
Phenyltoloxamine
Pilocarpine
Pimozide
Pipecolic Acid
Piroxicam
Potassium Iodide
Prazepam
Prednisolone Acetate
Prilocaine
Primaquine diphosphate
Primidone
Proadifen
Probenecid
Procainamide hydrochloride
Procaine
Procyclidine
Promazine
Promethazine
Propoxyphene,d-
Propranolol
Protriptyline
Pseudoephedrine HCL
Pyridine-2-Aldoxime
Pyridoxine
Pyrilamine
2, 3-pyridine dicarboxylic acid
Quinine
Quinidine
Quinacrine
Sodium chloride
Ritodrine
Roxithromycin tablets
Ranitidine
Riboflavin
Salbutamol (Albuterol)
Salicylic Acid
Secobarbital
Serotonin
Sodium Cromoglicate
Sodium Formate
Stearic magnesium
Sulfamethazine
Sulfamethoxazole
Sulfisoxazole
Sulindac
Sulfathiazole
Sulfanilamide
Tamoxifen Citrate
Tannic Acid
Tenoxicam
Terfenadine
Terbutaline
Tetraethylthiuram disulfide
Tetracycline
Thebaine
Theobromine
Thiamine
Theophylline
Tobramycin
Tolazamide
Tolbutamide
Tolmetin
Triprolidine
Tramadol
Trazodone
2, 4, 6-trmethylbezamide
Tropic Acid
Tropine
D/L-Tyrosine
Trichloroacetic acid
Trimipramine
Tryptamine
Trifluoperazine
D, L-Tryptophan
Triazolam
Trans-2-phenylcyclo-propylamine hydrochloride
Tyramine
Uric Acid
Urea
Vancomycin HCL
Venlafaxine hydrochloride
Verapamil
Xylometazoline hydrochloride
Yohimbine
Zearalenone
Zomepirac
Zopiclone
Albumin,Human recombinant
Atenolol
Benzthiazide
Beclomethasone
Bupropion hydrochloride
Benzalkonium bromide
Chlorothiazide
Camphor
Clonidine hydrochloride
Canrenoic acid
Captopril
Clozapine
Chloramphenicol
Cortisone
a-Chymotrypsin
Cetirizine Hydrochloride Tablets
Dipyridamole
Desoximetasone
R(-)-Epinephrine
Emetine dihydro-chloride hydrate
Ethyl acetate
Fluphenazine dihydrochloride
(+/-)-4-Hydroxyamphetamine HCL
Hydroxyurea
Haloperidol
Methyl salicylate
Methoxyamine hydrochloride
Metaproterenol hemisulfate salt
Norfludiazepam
Oxymorphone
Ofloxacin
Picrotoxin
Potassium chloride
Pargyline
Propionylpromazine
Sertraline
Trichlormethiazide
Trimethoprim
L-Thyroxine
Vincamine
Vanillic acid diethylamine

Tramadol Non Cross-Reacting Compounds
*Parent compound only:

4-Acetamidophenol
N-Acetylprocainamide
Acetylsalicylic acid
Aminopyrine
Amitryptyline
Amobarbital
Amoxicillin
Ampicillin
Ascorbic acid
D,L-Amphetamine
Apomorphine
Aspartame
Atropine
Benzilic acid
Benzoic acid
Benzoylecgonine
Benzphetamine
Bilirubin
Brompheniramine
Caffeine
Chloralhydrate
Chloramphenicol
Chlordiazepoxide
Chlorothiazide
(±) Chlorpheniramine
Chlorpromazine
Chlorquine
Cholesterol
Clomipramine
Clonidine
Cocaine hydrochloride
Codeine
Cortisone
(-) Cotinine
Creatinine
Deoxycorticosterone
Dextromethorphan
Diazepam
Diclofenac
Diflunisal
Digoxin
Diphenhydramine
Doxylamine
Ecgonine hydrochloride
Ecgonine methylester
(-) Y Ephedrine
Erythromycin
β-Estradiol
Estrone-3-sulfate
Ethyl-p-aminobenzoate
Fenoprofen
Furosemide
Gentisic acid
Hemoglobin
Hydralazine
Hydrochlorothiazide
Hydrocodone
Hydrocortisone
O-Hydroxyhippuric acid
3-Hydroxytyramine
Ibuprofen
Imipramine
(-) Isoproterenol
Isoxsuprine
Ketamine
Ketoprofen
Labetalol
Levorphanol
Loperamide
Maprotiline
Meprobamate
Methadone
Methoxyphenamine
(+)3,4-Methylenedioxyamphetamine
(+)3,4-Methylenedioxymethamphetamine
Methylphenidate
Morphine-3-β-Dglucuronide
Nalorphine
Naloxone
Nalidixic acid
Naltrexone
Naproxen
Niacinamide
Nifedipine
Norcodein
Norethindrone
D-Norpropoxyphene
Noscapine
D,L-Octopamine
Oxalic acid
Oxazepam
Oxolinic acid
Oxycodone
Oxymetazoline
p-Hydroxymethamphetamine
Papaverine
Penicillin-G
Pentobarbital
Perphenazine
Phencyclidine
Phenelzine
Phenobarbital
L-Phenylephrine
β-Phenylethlamine
Prednisolone
Prednisone
Procaine
Promazine
Promethazine
D,L-Propanolol
D-Propoxyphene
D-Pseudoephedrine
Quinidine
Quinine
Ranitidine
Salicylic acid
Secobarbital
Sulfamethazine
Sulindac
Temazepam
Tetracycline
Tetrahydrocortisone3 (5-Dglucuronide)
Tetrahydrozoline
Thebaine
Thiamine
Thioridazine
D, L-Thyroxine
Tolbutamine
Triamterene
Trifluoperazine
Trimethoprim
Trimipramine
D, L-Tryptophan
Tyramine
D, L-Tyrosine
Uric acid
Verapamil
Zomepirac

Ethyl Glucuronide
Non Cross-Reacting Compounds
*Parent compound only:

Acebutolol Hydrochloride
Acepromazine-d6 Hydrochloride
Acetaminophen
N-Acetylprocainamide
Acetophenetidin
Amoxicillin
Ampicillin
Amitriptyline Hydrochloride
S(-)-Amphetamine
R(-)-Amphetamine
Amobarbital
(±)Amphetamine
R-(-)-Apomorphine Hydrochloride Hemihydrate
Aspirin
Aspartame
L-Ascorbic Acid
Atropine
Benzphetamine HCL
Benzilic Acid
Benzoylecgonine
SS Benzoic Acid
Bilirubin, Mixed Isomers
Brompheniramine Maleate
Buspirone Hydrochloride
Butabarbital
Cannabidiol
Cannabinol
Caffeine
Chlordiazepoxide HCL
Chlorothiazide
Chloroquine Diphosphate
Chlorpheniramine Maleate
Chlorpromazine Hydrochloride
Chloramphenicol
Chloral Hydrate

Cholesterol
Chlorothiazide
Clomipramine Hydrochloride
Clonidine Hydrochloride
(-) Cotinine
Cocaethylene
Cocaine Hydrochloride
Codeine
Cortisone
Creatinine
Dextromethorphan
Diazepam
Diclofenac Sodium
Dicyclomine
Diflunisal
Digoxin
4-Dimethylaminoantipyrine
5,5-Diphenylhydantoin
Diphenhydramine
Dopamine Hydrochloride
Doxylamine Succinate Salt
Ecgonine Methyl Ester
Ecgonine HCL
Efavirenz
Emetine Dihydrochloride Hydrate
(-)-Epinephrine
Ephedrine-(±) Hydrochloride
(-)-Ephedrine HCL
(1R,2S)-(-)-Ephedrine
Erythromycin
Estradiol
Estrone-3-Sulfate Potassium Salt
Ethyl-P-Aminobenzoate
Fenoprofen Calcium Salt Hydrate
Furosemide
Gentisic Acid
D-Glucuronic Acid
Glutethimide
Guaifenesin (Guaiacol Glyceryl Ether)
Hemoglobin Porcine
Hippuric Acid
Hydralazine Hydrochloride
Hydrocodone
α-Hydroxyhippuric Acid
21-Hydroxyprogesterone
p-Hydroxymethamphetamine
Hydrocortisone
Hydrochlorothiazide
(±)- 4-Hydroxyamphetamine HCL
Ibuprofen
Imipramine HCL
Iprazid
Isoxsuprine Hydrochloride
Isoproterenol Hydrochloride
Ketamine Hydrochloride
Ketoprofen
Labetalol Hydrochloride
Levorphanol
Loperamide Hydrochloride
Loxapine Succinate Salt
Maprotiline Hydrochloride
(±)-3,4-Methylenedioxyethylamphetamine
(±)-3,4-Methylenedioxyamphetamine
Meperidine
Meprobamate
Methamphetamine Hydrochloride
(±)Methadone
S(+)-Methamphetamine
L-methamphetamine
Methoxyphenamine Hydrochloride
Methylphenidate
(±)-3,4-Methylenedioxymethamphetamine
Methyprylon
Morphine-3-β-D-Glucuronide
Morphine Sulfate Salt Solution
Nalidixic Acid
Nalorphine Hydrochloride
Naproxen
Naloxone
Naltrexone Hydrochloride
Nicotinamide (Vitamin B3)
Nimesulide
Nifedipine
Norcodeine
Nordoxepin Hydrochloride
Norethisterone
D-Norpropoxyphene Maleate Salt
Noscapine HCL Hydrate
Noroxymorphone HCL
Nylidrin Hydrochloride
(±)-Octopamine HCL
Oxalic Acid
Oxazepam
Oxolinic Acid
Oxycodone
Oxymetazoline Hydrochloride
Papaverine Hydrochloride
Phencyclidine
Pentobarbital
Pentazocine
Perphenazine
Penicillin G Sodium Salt
Phenelzine Sulfate Salt
Phenobarbital
Phentermine HCL
Phenylethylamine
L-Phenylephrine
Phenylpropanolamine Hydrochloride
Prednisolone
Prednisone Acetate
Procaine HCL
Promazine Hydrochloride
Promethazine
D-Propoxyphene
Propranolol Hydrochloride
Pseudoephedrine HCL
Quinine
Quinidine
Quinacrine Dihydrochloride
Ranitidine Hydrochloride
Salicylic Acid
Secobarbital
Serotonin HCL
Sertraline HCL
Sulfamethazine
Sulindac
Temazepam
Tetracycline
Tetrahydrozoline Hydrochloride
Tetrahydrocortisone 3-(β-D-Glucuronide)
Thebaine
Theophylline
Thioridazine
Thiamine, (Vitamin B1) HCL
L-Thyroxine
Tolbutamide
Trimethoprim
Trazodone Hydrochloride
Triamterene
Trimipramine
Tryptamine
Triflouperazine Dihydrochloride
DL-Tryptophan
Trans-2-Phenylcyclopropylamine
Hydrochloride
DL-Tyrosine
Tyramine
Uric Acid
Verapamil Hydrochloride
Zomepirac Sodium Salt

The Other Few Non Cross-Reacting Compounds of BUP at Concentration of 100µg/ml:

Codeine
Morphine

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