Drug Tests (Strip/Card/Device/Cup)

Package Insert for testing of any combination of the following drugs:
AMP/APAP/BAR/BZO/BUP/CAF/CFYL/CLZP/COC/COT/EDDP/ETG/FEN/GBPT/HDCD/K2/K3/K4/KET/KRA/LSD/MCAT/MTD/mAMP/MDMA/MDPV/MEP/MQL/MTHP/MOP/OPI/OXY/PCP/PPX/PGB/THC/TRA/TCA/ZOLP/ZOP/6-MAM/SOMA/XYL/ALC

Available with Specimen Validity Tests (S.V.T.) for:
Oxidants/PCC, Specific Gravity, pH, Nitrite, Glutaraldehyde and Creatinine

One step, rapid screening tests for the qualitative detection of drug(s) and drug metabolite(s) in human urine.

For in vitro diagnostic use only.

INTENDED USE

Drug Tests (Strip/Card/Device/Cup) is a lateral flow chromatographic immunoassay designed to qualitatively detect the presence of drugs and drug metabolites in human urine at the following cut-off concentrations:

Test Name	Calibrator	Cut-off
Amphetamine/AMP 1000	D-Amphetamine	1000 ng/mL
Amphetamine/AMP 500	D-Amphetamine	500 ng/mL
Amphetamine/AMP 300	D-Amphetamine	300 ng/mL
Amphetamine/AMP 100	D-Amphetamine	100 ng/mL
Acetaminophen/APAP 5000	Acetaminophen	5000 ng/mL
Acetaminophen APAP 2000	Acetaminophen	2000 ng/mL
Barbiturates/BAR 300	Secobarbital	300 ng/mL
Barbiturates/BAR 200	Secobarbital	200 ng/mL
Benzodiazepines/BZO 300	Oxazepam	300 ng/mL
Benzodiazepines/BZO 200	Oxazepam	200 ng/mL
Benzodiazepines/BZO 150	Oxazepam	150 ng/mL
Benzodiazepines/BZO 100	Oxazepam	100 ng/mL
Benzodiazepines/BZO 50	Oxazepam	50 ng/mL
Buprenorphine/BUP 10	Buprenorphine	10 ng/mL
Buprenorphine/BUP 5	Buprenorphine	5 ng/mL
Caffeine/CAF	Caffeine	8000 ng/mL
Carfentanyl/CFYL	Carfentanyl	500 ng/mL
Klonopin/CLZP	Klonopin	300 ng/mL
Cocaine/COC 300	Benzoylecgonine	300 ng/mL
Cocaine/COC 200	Benzoylecgonine	200 ng/mL
Cocaine/COC 150	Benzoylecgonine	150 ng/mL
Cocaine/COC 100	Benzoylecgonine	100 ng/mL
Cocaine/COC 50	Benzoylecgonine	50 ng/mL
Cocaine/COC 10	Benzoylecgonine	10 ng/mL
Cotinine/COT	Cotinine	200 ng/mL
EDDP/EDDP 300	EDDP	300 ng/mL
EDDP/EDDP 100	EDDP	100 ng/mL
Ethyl Glucuronide/ETG 1000	Ethyl Glucuronide	1000 ng/mL
Ethyl Glucuronide/ETG 500	Ethyl Glucuronide	500 ng/mL
Ethyl Glucuronide/ETG 300	Ethyl Glucuronide	300 ng/mL
Fentanyl/FEN 300	Fentanyl	300 ng/mL
Fentanyl/FEN 200	Fentanyl	200 ng/mL
Fentanyl/FEN 100	Fentanyl	100 ng/mL
Fentanyl/FEN 50	Fentanyl	50 ng/mL
Fentanyl/FEN 20	Fentanyl	20 ng/mL
Fentanyl/FEN 10	Fentanyl	10 ng/mL
Fentanyl/FEN 2	Fentanyl	2 ng/mL
Fentanyl/FEN 1	Fentanyl	1 ng/mL
Gabapentin/GBPT 2000	Gabapentin	2000 ng/mL
Gabapentin/GBPT 1000	Gabapentin	1000 ng/mL
Hydrocodone/HDCD	Hydrocodone	100 ng/mL
K2/K2-50	JWH-018/JWH-073	50 ng/mL
K2/K2-25	JWH-018/JWH-073	25 ng/mL
K2/K2-20	JWH-018/JWH-073	20 ng/mL
AB-PINACA/K3	AB-PINACA	300 ng/mL
AB-PINACA/K3	AB-PINACA	25 ng/mL
K4/UR-144	UR-144 5-Pentanoic acid Metabolite	10 ng/mL
Ketamine/KET 1000	Ketamine	1000 ng/mL
Ketamine /KET 500	Ketamine	500 ng/mL
Ketamine /KET 300	Ketamine	300 ng/mL
Ketamine /KET 100	Ketamine	100 ng/mL
Kratom/KRA 500	Mitragynine	500 ng/mL
Kratom/KRA 300	Mitragynine	300 ng/mL
Kratom/KRA 250	Mitragynine	250 ng/mL
Kratom/KRA 100	Mitragynine	100 ng/mL
Kratom/KRA 25	Mitragynine	25 ng/mL
Lysergic Acid Diethylamide/LSD 10	LSD	10 ng/mL
Lysergic Acid Diethylamide/LSD 3	LSD	3 ng/mL
Methcathinone/MCAT	S(-)-Methcathinone Hcl	1000 ng/mL
Methadone/MTD 500	Methadone	500 ng/mL
Methadone/MTD 300	Methadone	300 ng/mL
Methadone/MTD 200	Methadone	200 ng/mL
Methadone/MTD 150	Methadone	150 ng/mL
Methadone/MTD 50	Methadone	50 ng/mL
Methamphetamine/mAMP 1000/MET 1000	D-Methamphetamine	1000 ng/mL
Methamphetamine/mAMP 500/MET 500	D-Methamphetamine	500 ng/mL
Methamphetamine/mAMP 300/MET 300	D-Methamphetamine	300 ng/mL
Methamphetamine/mAMP 100/MET 100	D-Methamphetamine	100 ng/mL
Methylenedioxymethamphetamine/MDMA 500	MDMA	500 ng/mL
Methylenedioxymethamphetamine/MDMA 300	MDMA	300 ng/mL
Methylenedioxymethamphetamine/MDMA 100	MDMA	100 ng/mL
Methylenedioxypyrovalerone/MDPV 500	Methylenedioxypyrovalerone	500 ng/mL
Methylenedioxypyrovalerone/MDPV 300	Methylenedioxypyrovalerone	300 ng/mL
Mephedrone/MEP	Mephedrone	500 ng/mL
Methaqualone/MQL	Methaqualone	300 ng/mL
Methylphenidate/MTHP	Methylphenidate	300 ng/mL
Opiates 300/ Morphine/MOP/OPI 300	Morphine	300 ng/mL
Opiates 2000/OPI 2000	Morphine	2000 ng/mL
Opiates 2000/OPI 200	Morphine	200 ng/mL
Opiates 2000/OPI 100	Morphine	100 ng/mL
Opiates 2000/OPI 50	Morphine	50 ng/mL
Oxycodone/OXY 300	Oxycodone	300 ng/mL
Oxycodone/OXY 100	Oxycodone	100 ng/mL
Phencyclidine/PCP	Phencyclidine	25 ng/mL
Propoxyphene/PPX 300	Propoxyphene	300 ng/mL
Propoxyphene/PPX 100	Propoxyphene	100 ng/mL
Pregabalin/PGB	Pregabalin	500 ng/mL
Marijuana/THC 600	Delta-9-THC-COOH	600 ng/mL
Marijuana/THC 300	Delta-9-THC-COOH	300 ng/mL
Marijuana/THC 200	Delta-9-THC-COOH	200 ng/mL
Marijuana/THC 100	Delta-9-THC-COOH	100 ng/mL
Marijuana/THC 50	Delta-9-THC-COOH	50 ng/mL
Marijuana/THC 40	Delta-9-THC-COOH	40 ng/mL
Marijuana/THC 25	Delta-9-THC-COOH	25 ng/mL
Marijuana/THC 20	Delta-9-THC-COOH	20 ng/mL
Marijuana/THC 15	Delta-9-THC-COOH	15 ng/mL
Marijuana/THC 10	Delta-9-THC-COOH	10 ng/mL
Marijuana/THC 5	Delta-9-THC-COOH	5 ng/mL
Tramadol/TRA 300	Tramadol	300 ng/mL
Tramadol/TRA 200	Tramadol	200 ng/mL
Tramadol/TRA 100	Tramadol	100 ng/mL
Tricyclic Antidepressants/TCA 1000	Nortriptyline	1000 ng/mL
Tricyclic Antidepressants/TCA 100	Nortriptyline	100 ng/mL
Zolpidem/ZOLP	Zolpidem	10 ng/mL
Zopiclone/ZOP	Zopiclone	50 ng/mL
6-Monoacetylmorphine/6-MAM	6-Monoacetylmorphine	10 ng/mL
Carisoprodol/SOMA	Carisoprodol	1000 ng/mL
Xylazine/XYL	Xylazine	1000 ng/mL
Alcohol	ALC	0.0004

Drug Tests (Strip/Card/Device/Cup) provides only a preliminary analytical test result. The test is not intended to be used in monitoring the drug levels. A more specific alternate method must be used in order to confirm the test result. Gas Chromatography/Mass Spectrometry (GC/MS) is the preferred confirmatory method. Clinical consideration and professional judgment should be applied to any drug of abuse test results, particularly when preliminary positive results are obtained.

SUMMARY AND EXPLANATION OF THE TEST

Drug Tests (Strip/Card/Device/Cup) is an easy, fast, qualitative, visually read competitive binding immunoassay method for screening specific drugs and their metabolites without the need of instrumentation. The method employs a unique mixture of antibodies to selectively detect the elevated levels of specific drugs and their metabolites in urine. **Drug Tests (Strip/Card/Device/Cup)** optionally includes an adulteration strip for testing pH, Specific Gravity and Oxidants/ PCC.

AMPHETAMINE / AMP

Amphetamines are central nervous system stimulants that produce alertness, wakefulness, increased energy, reduced hunger, and overall feeling of well-being. They are chemically related to the human body's natural catecholamines: epinephrine and norepinephrine. Large doses and extended usage can result in higher tolerance levels and physiological dependency leading to substance abuse. The effect 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.

ACETAMINOPHEN / APAP

Acetaminophen is one of the most commonly used drugs, yet it is also an important cause of serious liver injury. Acetaminophen is the generic name of a drug found in many common brand name over-the-counter (OTC) products, such as Tylenol, and Prescription (Rx) products, such as Vicodin and Percocet. Acetaminophen is an important drug, and its effectiveness in relieving pain and fever is widely known. Unlike other commonly used drugs to reduce pain and fever (e.g., nonsteroidal antinflammatory drugs (NSAIDs), such as aspirin, ibuprofen, and naproxen), at recommended doses acetaminophen does not cause adverse effects, such as stomach discomfort and bleeding, and acetaminophen is considered safe when used according to the directions on its OTC or Rx labeling. However, taking more than the recommended amount can cause liver damage, ranging from abnormalities in liver function blood tests, to acute liver failure, and even death. Many cases of overdose are caused by patients inadvertently taking more than the recommended dose (i.e., 4 grams a day) of a particular product, or by taking more than one product containing acetaminophen (e.g., an OTC product and an Rx drug containing acetaminophen). The mechanism of liver injury is not related to acetaminophen itself, but to the production of a toxic metabolite. The toxic metabolite binds with liver proteins, which cause cellular injury. The ability of the liver to remove this metabolite before it binds to liver protein influences the extent of liver injury.

BARBITURATES / BAR

Barbiturates are central nervous system depressants. They are usually administered orally but are sometimes injected intramuscularly and intravenously. Barbiturates range from short-acting (approximately 15 minutes, such as secobarbital) to long-acting (24 hours or longer, such as Phenobarbital). Short-acting barbiturates are extensively metabolized in the body, while the long-acting ones are secreted primarily unchanged. Barbiturates produce alertness, wakefulness, increased energy, reduced hunger, and an overall feeling of well being. Large doses of Barbiturate could develop tolerance and physiological dependency and lead to its abuse.

BENZODIAZEPINES / BZO

Benzodiazepines are a class of drugs that are often therapeutically used as anxiolytics, anti-convulsants and sedative hypnotics. Benzodiazepines manifest their presence by analgesia, drowsiness, confusion, diminished reflexes, lowering of body temperature, respiratory depression, blockade of adrenocortical response, and a decrease in peripheral resistance without an impact on the cardiac index. The major pathways of elimination are the kidneys (urine) and the liver where it is conjugated to glucuronic acid. Large doses of Benzodiazepines could develop tolerances and physiological dependency and lead to its abuse. Only trace amounts (less than 1%) of Benzodiazepines are excreted unaltered in the urine, most of Benzodiazepines in urine is conjugated drug. Oxazepam, a common metabolite of many benzodiazepines, remains detectable in urine for up to one week, which makes Oxazepam a useful marker of Benzodiazepines abuse.

BUPRENORPHINE / BUP

Buprenorphine is a potent analgesic often used in the treatment of opioid addiction. The drug is sold under the trade names Subutex™, Buprenex™, Temgesic™ and Suboxone™, which contain Buprenorphine HCl alone or in combination with Naloxone HCl. Therapeutically, Buprenorphine is used as a substitution treatment for opioid addicts. Substitution treatment is a form of medical care offered to opiate addicts (primarily heroin addicts) based on a similar or identical substance to the drug normally used. In substitution therapy, Buprenorphine is as effective as Methadone but demonstrates a lower level of physical dependence. Concentrations of free Buprenorphine and Norbuprenorphine in urine may be less than 1 ng/mL after therapeutic administration, but can range up to 20 ng/mL in abuse situations. The plasma half life of Buprenorphine is 2-4 hours. While complete elimination of a single dose of the drug can take as long as 6 days, the window of detection for the parent drug in urine is thought to be approximately 3 days.

CAFFEINE / CAF

Caffeine is an alkaloid synthesized chemically or extracted from tea and coffee fruit. Long-term use of large doses will cause damage to the human body, cause convulsions, arrhythmia, aggravate or induce peptic intestinal ulcer, and even lead to lower intelligence and limb deformity of the next generation of smokers. At the same time, it is addictive, and withdrawal symptoms will occur when it is stopped.

Carfentanyl / CFYL
Carfentanyl is a synthetic opioid approximately 10,000 times more potent than morphine and 100 times more potent than fentanyl. It is also used to tranquilize elephants and other large mammals. Users exposed to carfentanyl can experience dizziness, clammy skin, shallow breathing, heart failure and more.

KLONOPIN / CLZP
Klonopin (CLZP) is an anti-anxiety, anti-depressant, sedative, hypnotic and antispasm, one of the commonly used psychotropic drugs. Excessive intake of clonazepam can lead to persistent psychosis, severe drowsiness, incoherent speech, slowing heart rate, shortness of breath or difficulty, severe fatigue. Use an overdose of negative effects of clonazepam, in recent years, the anesthesia robbery increased year by year in our country criminal cases, drugs to rob, klonopin use frequency is higher in the robbery.

COCAINE / COC
Cocaine is an alkaloid present in Coca leaves (Erythyroxine coca). Its pharmacological properties, such as stimulating and euphoric effects, have been known for centuries. Cocaine produces alertness, wakefulness, increased energy, reduced hunger, and an overall feeling of well being. In large dose, Cocaine causes fever, unresponsiveness, difficulty in breathing and unconsciousness. Cocaine is often self-administered by nasal inhalation, intravenous injection and free-base smoking. Cocaine is excreted in the urine primarily as Benzoylecgonine, which can generally be detected for 24-48 hours after cocaine exposure.

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 the active 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.

EDDP / EDDP
Methadone, a Schedule II controlled substance, is often used in the treatment of opiate addiction and pain management; it also has a high potential for abuse. Methadone is metabolized primarily into two pharmacologically inactive metabolites, EDDP and EMDP. (2-ethylidene-1, 5-dimethyl-3, 3-diphenylpyrrolidine) represents a better urine marker for monitoring methadone maintenance than testing for un-metabolized methadone alone.

ETHYL GLUCURONIDE / ETG
Ethyl Glucuronide (ETG) is a metabolite of ethyl alcohol which is formed in the body by glucuronidation following exposure to ethanol, such as by drinking alcoholic beverages. It is used as a biomarker to test for ethanol use and to monitor alcohol abstinence in situations where drinking is prohibited, such as in the military, in professional monitoring programs (health professionals, attorneys, airline pilots in recovery from addictions), in schools, in liver transplant clinics, or in recovering alcoholic patients. ETG can be measured in urine up to approximately 80 hours after ethanol is ingested. ETG is a more accurate indicator of the recent exposure to alcohol than measuring for the presence of ethanol itself.

FENTANYL / FEN
Fentanyl is an extremely fast-acting synthetic narcotic analgesic, of high potency (approximately 100 to 200 times that of morphine) and short duration of action. Pharmaceutical fentanyl has been available since 1963 as an anaesthetic supplement, and is available as a citrate salt for I.V or I.M injection. Transdermal patches are also available for management of chronic pain or for breakthrough cancer pain. Due to the lipophilicity of the drug, fentanyl rapidly crosses the blood-brain barrier, producing fast and pronounced CNS effect, such as a heightened euphoria and respiratory depression, and possible toxic effects which include muscle rigidity, seizures, coma, and hypotension. Fentanyl also has similar tolerance and physical dependence properties to those of morphine.

GABAPENTIN / GBPT
Gabapentin is a medication which is used to treat partial seizures, neuropathic pain, hot flashes, and restless legs syndrome.It is recommended as one of a number of first-line medications for the treatment of neuropathic pain caused by diabetic neuropathy, postherpetic neuralgia, and central neuropathic pain.
Common side effects of gabapentin include sleepiness and dizziness.Serious side effects include an increased risk of suicide, aggressive behavior, and drug reaction with eosinophilia and systemic symptoms. It is unclear if it is safe during pregnancy or breastfeeding. Lower doses are recommended in those with kidney disease associated with a low glomerular filtration rate. Gabapentin is a gabapentinoid: it has a structure similar to that of the neurotransmitter γ-aminobutyric acid (GABA) and acts by inhibiting certain calcium channels. The oral bioavailability of gabapentin is approximately 80% at 100 mg but decreases to 60% at 300 mg, 47% at 400 mg, 34% at 800 mg, 33% at 1,200 mg, and 27% at 1,600 mg.
Drugs that increase the transit time of gabapentin in the small intestine can increase its oral bioavailability; when gabapentin was co-administered with oral morphine (which slows intestinal peristalsis),the oral bioavailability of a 600 mg dose of gabapentin increased by 50%. Gabapentin at a low dose of 100 mg has a Tmax (time to peak levels) of approximately 1.7 hours, while the Tmax increases to 3 to 4 hours at higher doses.

HYDROCODONE / HDCD
Hydrocodone are central nervous system stimulants that produce alertness, wakefulness, increased energy, reduced hunger, and overall feeling of well-being. They are chemically related to the human body's natural catecholamines: epinephrine and norepinephrine. Large doses and extended usage can result in higher tolerance levels and physiological dependency leading to substance abuse. The effect of hydrocodone generally last 2-4 hours following use, and the drug has a half-life of 4-24 hours in the body. About 30% of hydrocodone are excreted in the urine in unchanged form, with the remainder as hydroxylated and deaminated derivatives.

K2 / K2
Synthetic cannabis is a psychoactive herbal and chemical product that, when consumed, mimics the effects of cannabis. It is best known by the brand names K2 and Spice, both of which have largely become genericized trademarks used to refer to any synthetic cannabis product. The studies suggest that synthetic cannabinoid intoxication is associated with acute psychosis, worsening of previously stable psychotic disorders, and also may have the ability to trigger a chronic (long-term) psychotic disorder among vulnerable individuals such as those with a family history of mental illness. As of March 1, 2011, five cannabinoids, JWH -018, JWH-073, CP-47, JWH-200 and cannabicyclohexanol are now illegal in the US because these substances have the potential to be extremely harmful and, therefore, pose an imminent hazard to the public safety.

AB-PINACA / K3
A potent CB1 and CB2 receptor agonist, AB-PINACA is a member of the aminoalkyl-indazole class of synthetic cannabinoids. AB-PINACA is fully substitutes for Δ^9-THC in rat discrimination studies, while being 1.5x more potent .it is a compound that was first identified as a component of synthetic cannabis products in Japan in 2012. There have been a number of reported cases of deaths and hospitalizations in relation to this synthetic cannabinoid. AB-PINACA was primarily hydrolyzed to AB-PINACA carboxylic acid and metabolized to carbonyl-AB-PINACA and hydroxypentyl AB-PINACA and AB-PINACA. Thus, the presence of the parent compound in the urine indicates AB-PINACA use.

UR-144 / K4
UR-144 is also known under the names TMCP-018, KM-X1, UR-144, MN-001, and YX-17. UR-144 acts as selective full agonist of the peripheral CB2 receptorin vitro (outside living organism). UR-144 has a low affinity for the CB1 receptor. UR-144 would be a great addition to researchers concentrating on the peripheral CB1 receptor. UR-144 has been detected as an ingredient of synthetic cannabissmoking blends in New Zealand, and subsequently banned from sale as a temporary class drugon 6 April 2012. It has also been encountered in smoking blends and subsequently banned in Russia. A forensic standard of UR-144 is available, and the compound has been posted on the Forendex website of potential drugs of abuse. Drug Test Card yields a positive result when theconcentration of UR-144 Pentanoic Acid metabolitein urine exceeds 10 ng/mL.

KETAMINE / KET
Ketamine is a drug used in human and veterinary medicine. Ketamine has a wide range of effects in humans, including analgesia, anesthesia, hallucinations and elevated blood pressure. Ketamine is primarily used for the induction and maintenance of general anesthesia, usually in combination with a sedative. The common way to abuse ketamine is smoking, inhalants, intravenous injection or drink. Ketamine is metabolized mostly into metabolites and only 5% of the prototype. The drug is metabolized quickly in the body, and usually can be detected within 2-3 hours after smoking.

KRATOM / KRA
Kratom is a plant of Rubiaceae. It is native to Southeast Asia, and its appearance is yellowish brown or reddish brown plant fragments or powder. Its main active components are pilocarpine and 7-hydroxypilocarpine, which have anesthetic effects similar to morphine. It can be drunk after soaking in water or wine, or filled with capsules. The body will feel excited within ten minutes after taking it.
The high concentration of alkaloid extracts extracted from Kartom leaves may be more harmful than unprocessed leaves. If Kartom is mixed with sedatives such as alcohol, it may have an additive effect. The alkaloids contained in Kartom leaves are natural opioids. Long term use will seriously damage the liver, and lead to anorexia, emaciation and mental disorders. They are highly dependent, and will produce symptoms such as irritability, pain, insomnia, etc. when giving up. According to experts, Kartom leaf is similar to opium. Addicts who eat it raw will feel extremely energetic at the beginning and can do heavy physical work for a long time. But after a period of taking, it will become a morbid state like other drug addiction.

LYSERGIC ACID DIETHYLAMIDE / LSD
Lysergic acid diethylamide (LSD) is a white powder or a clear, colorless liquid. LSD is manufactured from lysergic acid which occurs naturally in the ergot fungus that grows on wheat and rye. It is a Schedule I controlled substance, available in liquid, powder, tablet (microdots), and capsule form. LSD is recreationally used as a hallucinogen for its ability to alter human perception and mood. LSD is primarily used by oral administration, but can be inhaled, injected, and transdermally applied. LSD is a non-selective 5-HT agonist, may exert its hallucinogenic effect by interacting with 5-HT 2A receptors as a partial agonist and modulating the NMDA receptor-mediated sensory, perceptual, affective and cognitive processes. LSD mimics 5-HT at 5-HT 1A receptors, producing a marked slowing of the firing rate of serotonergic neurons. LSD has a plasma half-life of 2.5-4 hours. Metabolites of LSD include N-desmethyl-LSD, hydroxy-LSD, 2-oxo-LSD, and 2-oxo-3-hydroxy-LSD. These metabolites are all inactive. LSD use can typically be detected in urine for periods of 2-5 days.

Methcathinone / MCAT
Methcathinone is a central nervous stimulant and monoamine alkaloid of the phenethylamine class which has effects similar but not identical to that of cathinone. Clinical use In the United States, methcathinone is listed as a Schedule I drug, for which there is no clinical use. In the Netherlands, methylcathinone is listed as a Level I substance of the Opium Law, for which there is no clinical use.

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). It is administered either orally, or by intravenous or intra-muscular injection. The duration of effect of methadone is 12-24 hours. Its major urinary excretion products are methadone, EDDP (2-ethylidene-1, 5-dimethyl-3, 3-diphenylprryolidine), and EMDP (2-ethyl-5-methy -3, 3-diphenylpyrrolidine).

METHAMPHETAMINE / mAMP / MET
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 can be taken orally, injected, or inhale. 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. Methamphetamine is excreted in the urine as amphetamine and oxidized and deaminated derivatives. However, 10 to 20 % of Methamphetamine is excreted unchanged. Thus, the presence of the parent compound in the urine indicates Methamphetamine use.

METHYLENEDIOXYMETHAMPHETAMINE / MDMA
MDMA belongs to a family of man-made drugs. Its relatives include MDA (methylenedioxyamphetamine), and MDEA (methylenedioxyethylamphetamine). They all share the amphetamine-like effects. MDMA is a stimulant with hallucinogenic tendencies described as an empathogen as it releases mood-altering chemicals, such as cartooning and L-dopa, and may generate feelings of love and friendliness. The adverse effects of MDMA use include elevated blood pressure, hyperthermia, anxiety, paranoia and insomnia. MDMA is administered either by oral ingestion or intravenous injection. The effects of MDMA begin 30 minutes after intake, peak in an hour and last for 2-3 hours.

METHYLENEDIOXYPYROVALERONE / MDPV
Methylenedioxypyrovalerone (MDPV) is a psychoactive recreational drug with stimulant properties which acts as a norepinephrine-dopamine reuptake inhibitor (NDRI). MDPV remained an obscure stimulant until around 2004 when it was reportedly sold as a designer drug. Products labeled as bath salts containing MDPV were previously sold as recreational drugs in gas stations and convenience stores in the United States, similar to the marketing for Spice and K2 as incense. MDPV is illegal to use in United States for any medical purposes as it is a psychotropic drug. One year ban was also put on this drug by Drug enforcement

administration (DEA) in October 2011. This drug is also prohibited in many European countries.

MEPHEDRONE / MEP
Mephedrone is highly addictive. The main harm of mephedrone is to stimulate the human heart, cause the blood circulation system and nervous system to malfunction, and may lead to sudden weight loss in a short period of time. Moreover, once addicted, the symptoms are also very obvious. The main manifestations may include excessive anxiety, strong aggressive tendencies,sudden emotional changes, etc.

METHAQUALONE / MQL
Methaqualone is a sedative-hypnotic drug that is similar in effect to barbiturates. The sedative-hypnotic activity was first noted by Indian researchers in the 1950s. Its use peaked in the early 1970s as a hypnotic, for the treatment of insomnia, and as a sedative and muscle relaxant. It has also been used illegally as a recreational drug. In 1965 a Methaqualone/antihistamine combination was sold as the sedative drug Mandrax, by Roussel Laboratories (now part of Sanofi-Aventis). Methaqualone is a depressant that increases the activity of the GABA receptors in the brain and nervous system. When GABA activity is increased, blood pressure drops and the breathing and pulse rates slow, leading to a state of deep relaxation. Methaqualone peaks in the bloodstream within several hours, its effects generally lasting four to eight hours. Regular users build up a physical tolerance, requiring larger doses for the same effect. Overdose can lead to nervous system shut down, coma and death.

METHYLPHENIDATE / MTHP
Methylphenidate (Ritalin) is a psychostimulant drug approved for treatment of ADHD or attention-deficit hyperactivity disorder, postural orthostatic tachycardia syndrome and narcolepsy. Methylphenidate primarily acts as a norepinephrine-dopamine reuptake inhibitor. Methylphenidate is most active at modulating levels of dopamine and to a lesser extent norepinephrine. Similar to cocaine, methylphenidate binds to and blocks dopamine transporters and norepinephrine transporters. Methylphenidate has both dopamine transporter and norepinephrine transporter binding affinity, with the dextromethylphenidate enantiomers displaying a prominent affinity for the norepinephrine transporter. Methylphenidate may also exert a neuroprotective action against the neurotoxic effects of Parkinson's disease and methamphetamine abuse. Methylphenidate taken orally has a bioavailability of 11-52% with a duration of action around 1-4 hours for instant release, 3-8 hours for sustained release, and 8-12 hours for extended release (Concerta). The half-life of methylphenidate is 2-3 hours, depending on the individual. The peak plasma time is achieved at about 2 hours.

OPIATES / OPI
Opiates refer to any drug that is derived from the opium poppy, including the natural products, morphine and codeine, and the semi-synthetic drugs such as heroin. Opiates exert their effects on the central nervous system and organs containing smooth muscle. Opiates manifest their presence by analgesia, drowsiness, euphoria, lowering of body temperature, respiratory depression, blockade of adrenocortical response. The major pathways of elimination are kidneys (urine) and the liver where it is conjugated to glucuronic acid. Opiates and their metabolites can be detected in urine as result of heroin, morphine, codeine or poppy seed intake.

OXYCODONE / OXY
Oxycodone is an analgesic, which works by depressing the central nervous system. Oxycodone is abused for its opiate-like effects. In addition to its equal potency to morphine in analgesic effects, it is also equipotent to morphine in relieving abstinence symptoms from chronic opiate (heroin, morphine) use. For this reason, it is often used to alleviate or prevent the onset of opiate withdrawal by street users of heroin and methadone. The drug is most often administered orally. Like other opiates, Oxycodone can also depress the respiratory system resulting in suffocation and death when overdosed. Oxycodone is very addictive, both physically and psychologically. Some physical indications of Oxycodone abuse include extreme loss of appetite and weight, cramps, nausea, vomiting, excessive scratching and complaint of itching, excessive sweating, constipation, pin-point pupils and watery eyes, reduced vision, drowsiness, euphoria, trance-like states, excessive thirst, tremors, twitching, irritability, hallucinations and lethargy.

PHENCYCLIDINE / PCP
Phencyclidine, commonly known as PCP or "angel dust" is used primarily as recreational drug due to its hallucinogenic effects. It is generally self-administered by intravenous injection or by inhalation and concentrates fastest in fatty tissues and the brain. The effects of PCP are very much dose related. Small amounts of Phencyclidines (PCP) are central nervous system stimulants that produce alertness, wakefulness, increased energy, increased heat rate, and decreased sense of pain and touch, and an overall feeling of well being. Large doses of Phencyclidine (PCP) can result in death due to convulsions, heart and lung failure and coma. Large repeated doses of Phencyclidine (PCP) could develop tolerances and physiological dependency and lead to its abuse. PCP can be found in urine within 4 to 6 hours after use and will remain in urine for 7 to 14 days. Phencyclidine is excreted in the urine as an unchanged drug (4% to 19%) and conjugated metabolites (25% to 30%).

PROPOXYPHENE / PPX
Propoxyphene is a prescription drug for the relief of pain. Overdose of propoxyphene can have the symptoms including analgesia, stupor, respiratory depression and coma. The half-life of propoxyphene is 8 to 24 hours. Propoxyphene reaches its peak in 1 to 2 hours after oral administration.

PREGABALIN / PGB
Pregabalin, sold under the trade name Lyrica®, an analog of the inhibitory neurotransmitter gamma-aminobutyric acid and also of gabapentin, has been used clinically since 2002 as an analgesic, anticonvulsant and anxiolytic agent. It is supplied as the free drug in 25-300 mg capsules for oral administration. Adult dose are normally within a range of 50-200 mg thrice daily.
A single oral labeled dose of pregabalin in humans was eliminated in urine (92%) and feces (<0.1%) over a 4 days period. Urinary excretion products included unchanged drug (90% of the dose), N-Methylpregabalin (0.9%) and others. Single oral 75 or 150 mg doses given to a healthy human yielded peak urinary pregabalin concentrations of 151 or 214 µg/mL, respectively, in the first 8 hours specimen. Pregabalin urine levels in 57,542 specimens from chronic pain patients averaged 184 µg/mL[1,2].

MARIJUANA / THC
THC (Δ^9 – tetrahydrocannabinol) is the primary active ingredient in cannabis (marijuana). THC is central nervous stimulant that alters mood and sensory perceptions, produces loss of coordination, impairs short-term memory, produces symptoms of anxiety, paranoia, depression, confusion, hallucination, and increases heart rate. Large doses of marijuana could develop tolerances and physiological dependency and lead its abuse. The main metabolite excreted in the urine is 11-nor- Δ^9 – tetrahydrocannabinol-9-carboxylic acid (Δ^9–THC-COOH), which is found in the urine within hours of exposure and remains detectable for 3-10 days after smoking.

TRAMADOL / TRA
Tramadol is a centrally acting opioid analgesic, used in treating moderate to severe pain. Tramadol possesses weak agonist actions at the µ-opioid receptor, releases serotonin, and inhibits the reuptake of norepinephrine. Tramadol undergoes hepatic metabolism, being O- and N- demethylated to five different metabolites. Of these, O-desmethyltramadol is the most significant. Approximately 30% of the dose is excreted in the urine as unchanged drug, whereas 60% of the dose is excreted as metabolites, the remainder is excreted either as unidentified or an unextractable metabolites.

TRICYCLIC ANTIDEPRESSANTS / TCA
Tricyclic Antidepressants are a group of antidepressant drugs that are commonly used for treatment of depressive disorders. TCAs can be taken orally or by intramuscularly injection (IM). The symptoms of TCAs overdoses include agitation, confusion, hallucinations, hypertonicity, seizures, and EKG changes. The half-life of TCA varies from a few hours to several days. The commonly used TCAs are excreted with a very low percentage of unchanged drugs in the urine. Therefore, detection of the metabolites of TCAs in human urine has been used for screening the abuse of TCAs.

ZOLPIDEM / ZOLP
Zolpidem (brand names Ambien, Ambien CR, Intermezzo, Stilnox, Stilnoct, Sublinox, Hypnogen, Lunata, Zonadin, Sanval, Zolsana and Zolfresh) is a prescription medication used for the treatment of insomnia and some brain disorders. It is a short-acting nonbenzodiazepine hypnotic of the imidazopyridine class that potentiates GABA, an inhibitory neurotransmitter, by binding to GABAA receptors at the same location as benzodiazepines. It works quickly, usually within 15 minutes, and has a short half-life of two to three hours. Zolpidem has not adequately demonstrated effectiveness in maintaining sleep, unless delivered in a controlled-release (CR) form. However, it is effective in initiating sleep. Its hypnotic effects are similar to those of the benzodiazepine class of drugs, but it is molecularly distinct from the classical benzodiazepine molecule and is classified as an imidazopyridine. Zolpidem has slight muscle relaxant and anticonvulsant properties, but has not been approved for use in muscle relaxation or seizure prevention. This is because the dosage of drug needed to cause muscle relaxation is 10 times the sedating dose, and the dosage needed for preventing seizures is 20 times the sedating dose; high dosages are more likely to cause unpleasant side effects such as hallucinations and amnesia.

ZOPICLONE / ZOP
Zopiclone is a non benzodiazepine hypnotic used to treat insomnia. As a pyrrolidone, like benzodiazepines, it can increase the normal transmission of the neurotransmitter γ - aminobutyric acid in the central nervous system, but in different ways. Zopiclone is used for short-term treatment of insomnia with sleep or sleep maintenance disorders as prominent symptoms. However, long-term use is not recommended, as long-term use can lead to tolerance, dependence and addiction. Zopiclone is recommended for short-term use, usually one week or less. In addition, daily or continuous use of the drug is not generally recommended.

6-MONOACETYLMORPHINE / 6-MAM
6-Monoacetylmorphine (6-MAM) is one of three active metabolites of heroin (diacetylmorphine). 6-MAM occurs as a metabolite of heroin once it has passed first-pass metabolism. 6-MAM and then is metabolized into morphine or excreted in urine. Heroin is rapidly metabolized by esterase enzymes in the brain and has an extremely short half-life. It has also relatively weak affinity to µ-opioid receptors because the 3-hydroxy group, essential for effective binding to the receptor, is masked by the acetyl group. Therefore, heroin acts as a pro-drug, serving as a lipophilic transporter for the systemic delivery of morphine, which actively binds with µ-opioid receptors. 6-MAM already has a free 3-hydroxy group and shares the high lipophilicity of heroin, so it penetrates the brain just as quickly and does not need to be deacetylated at the 6-position in order to be bioactivated; this makes 6-MAM somewhat more potent than heroin.

Carisoprodol /SOMA
Carisoprodol is Muscle Anning, Calati, RELA. It is a derivative of meprobamate. It also has sedative and anti-anxiety effects. It is used to treat acute muscle spasms and sprains. However, its potential for abuse and the side effects of overdose cannot be ignored. **Drug Tests (Strip/Card/Device/Cup)** yields a positive result when the concentration of Carisoprodol in urine exceeds 1,000 ng/mL.

XYLAZINE / XYL
Xylazine, a non-opioid veterinary tranquilizer not approved for human use, has been linked toan increasing number of overdose deaths nationwide in the evolving drug addiction and overdosecrisis. Studies show people exposed to xylazine often knowingly or unknowingly used it in combination with other drugs particularly illicit fentanyl.
Also known as "tranq" xylazine is a central nervous system depressant that can causedrowsiness and amnesia and slow breathing, heart rate, and blood pressure to dangerously low levels. Taking opioids in combination with xylazine and other central nervous systemdepressants like alcohol or benzodiazepines increases the risk of life-threateningoverdose.

ALCOHOL (ALC)
Alcohol intoxication can lead to loss of alertness, coma, death and as well as birth defects. The BAC at which a person becomes impaired is variable. The United States Department of Transportation (DOT) has established a BAC of 0.02% (0.02 g/dL) as the cut-off level at which an individual is considered positive for the presence of alcohol. Since the urine alcohol concentration is normally higher than that in saliva and blood, the cutoff concentration for alcohol in urine was set at 0.04%.

S.V.T. SUMMARY
The strips contain chemically treated reagent pads. Three to five minutes following the activation of the reagent pads by the urine sample, the colors that appear on the pads can be compared with the printed color chart card. The color comparison provides a semi-quantitative screen for any combination of oxidants/pyridinium chlorochromate (PCC), specific gravity, pH, nitrite, glutaraldehyde and creatinine in human urine which can help to assess the integrity of the urine sample.

WHAT IS ADULTERATION?
Adulteration is the tampering of a urine specimen with the intention of altering the test results. The use of adulterants can cause false negative results in drug tests by either interfering with the screening test and/or destroying the drugs present in the urine. Dilution may also be employed in an attempt to produce false negative drug test results.
One of the best ways to test for adulteration or dilution is to determine certain urinary characteristics such as pH, specific gravity and creatinine and to detect the presence of oxidants/PCC, nitrites or glutaraldehyde in urine.

- **Oxidants/PCC (Pyridinium chlorochromate)** tests for the presence of oxidizing agents such as bleach and hydrogen peroxide. Pyridinium chlorochromate (sold under the brand name UrineLuck) is a commonly used adulterant.[6] Normal human urine should not contain oxidants of PCC.
- **Specific gravity** tests for sample dilution. The normal range is from 1.003 to 1.030. Values

outside this range may be the result of specimen dilution or adulteration.

- **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 outside of this range may indicate the sample has been altered.
- **Nitrite** tests for commonly used commercial adulterants such as Klear and Whizzies. They work by oxidizing the major cannabinoid metabolite THC-COOH.[9] Normal urine should contain no trace of nitrite. Positive results generally indicate the presence of an adulterant.
- **Glutaraldehyde** tests for the presence of an aldehyde. Adulterants such as UrinAid and Clear Choice contain glutaraldehyde which may cause false negative results by disrupting the enzyme used in some immunoassay tests.[7] Glutaraldehyde is not normally found in urine; therefore, detection of glutaraldehyde in a urine specimen is generally an indicator of adulteration.
- **Creatinine** is a waste product of creatine; an amino-acid contained in muscle tissue and found in urine.[8] A person may attempt to foil a test by drinking excessive amounts of water or diuretics such as herbal teas to "flush" the system. Creatinine and specific gravity are two ways to check for dilution and flushing, which are the most common mechanisms used in an attempt to circumvent drug testing. Low Creatinine and specific gravity levels may indicate dilute urine. The absence of Creatinine (<5 mg/dL) is indicative of a specimen not consistent with human urine.

PRINCIPLE OF TEST

① **Drug Tests (Strip/Card/Device/Cup)** is a competitive binding immunoassay in which drugs and drug metabolites in a urine sample compete with immobilized drug conjugate for limited labeled antibody binding sites. When a sufficient amount of urine specimen is applied to the sample pad of the test device, the urine specimen migrates through the test device by capillary action. If the drug or drug metabolite concentration in the specimen is below the cut-off level, the anti-drug antibodies in colloidal gold particles will bind to the drug antigens coated in the test line of the nitrocellulose membrane to form a T line, which indicates a negative result. If the concentration of drug in the urine specimen is above the cut-off level, it will bind with antibodies conjugated with colloidal gold particles, so that no T line will be developed in the test region, which indicates a positive result.

② **Alcohol (ALC) Tests (Strip/Card/Device/Cup)** 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:

$$\text{EtOH} + \text{TMB} \xrightarrow{\text{ALOx/Peroxidase}} \text{CH}_3\text{CHO} + \text{Colored TMB}$$

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

Drug Tests (Strip/Card/Device/Cup) contains membrane strips coated with drug-protein conjugates (purified bovine albumin) on the T zone, goat polyclonal antibody against gold-protein conjugate at the C zone, and a dye pad which contains colloidal gold particles coated with mouse monoclonal antibodies specific against to Amphetamine, Acetaminophen, Barbiturates, Benzodiazepines, Buprenorphine, Caffeine, Carfentanyl, Klonopin, Cocaine, Cotinine, EDDP, Ethyl Glucuronide, Fentanyl, Gabapentin, Hydrocodone, K2, AB-PINACA, UR-144 5-Pentanoic acid Metabolite, Ketamine, Kratom, Lysergic Acid Diethylamide, Methcathinone, Methadone, Methamphetamine, Methylenedioxymethamphetamine, Methylenedioxypyrovalerone, Mephedrone, Methaqualone, Methylphenidate, Morphine, Opiates, Oxycodone, Phencyclidine, Propoxyphene, Pregabalin, Marijuana, Tramadol, Tricyclic Antidepressants, Zolpidem, Zopiclone, 6-Monoacetylmorphine, Carisoprodol, Xylazine and Alcohol.

S.V.T. REAGENTS

Adulteration Pad	Reactive indicator	Buffers and non-reactive ingredients
Oxidants / PCC	0.36%	99.64%
Specific Gravity	0.25%	99.75%
pH	0.06%	99.94%
Nitrite	0.07%	99.93%
Glutaraldehyde	0.02%	99.98%
Creatinine	0.04%	99.96%

MATERIALS PROVIDED

- Drug Tests (Strip/Card/Device/Cup)
- Product insert
- Security Seal
- Procedure Card
- Adulteration color card (Optional)
- Color chart for alcohol test (optional)

MATERIALS REQUIRED BUT NOT PROVIDED

- Clock or timer
- External positive and negative controls

PRECAUTIONS

1. For *in vitro* diagnostic use only.
2. Do not use after the expiration date.
3. The drug tests should remain in the sealed pouch until use.
4. All specimens should be considered potentially hazardous and handle in the same way as an infectious material.
5. All used drug tests should be discarded according to federal, state and local regulation.

STORAGE AND STABILITY

Store **Drug Tests (Strip/Card/Device/Cup)** in the sealed pouch at 2℃ to 30℃. The drug tests is stable through the expiration date printed on the sealed pouch. The drug tests must remain in the sealed pouch until use. If store at 2℃ to 8℃, allow the drug tests to reach room temperature (15℃ to 30℃) before performing the test. Dot not freeze, do not use beyond the expiration date.

SPECIMEN COLLECTION AND STORAGE

Fresh urine specimens should be collected directly into a clean and dry container. Urine collected at any time of the day may be used for testing. Urine specimen exhibiting visible precipitates should be centrifuged, filtered or allowed the precipitates to settle to obtain a clear specimen for testing.

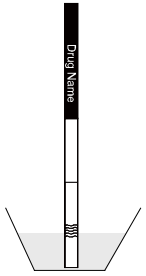
For best results, test a fresh specimen immediately following collection. Storage of specimens should not exceed 2 hours at room temperature or 4 hours refrigerated (2-8℃) prior to using.

TEST PROCEDURE

For Drug Test Strip:

Allow the test strip, urine specimen (if refrigerated), and/or controls to equilibrate to room temperature (15-30℃) prior to testing.

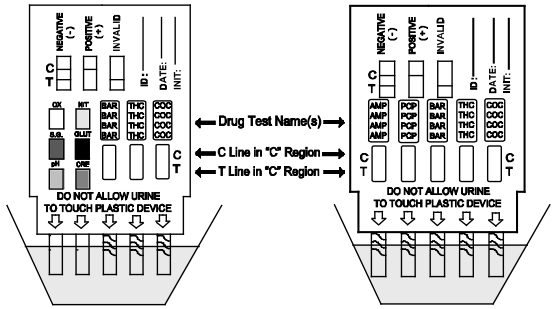
1. Remove the test strip from the sealed pouch and dip the end of the strip into the specimen for at least 15 seconds to 20 seconds or until migration occurs. Immerse the strip just below the top line of the wave line on the test strips.
2. Place the test strip on a flat dry surface.
3. Wait for the colored line(s) to appear. Read the results of drug tests at 5 to 10 minutes, read the alcohol test result at 2 to 5 minutes.



For Drug Test Card:

Allow the test card, urine specimen (if refrigerated), and/or controls to equilibrate to room temperature (15-30℃) prior to testing.

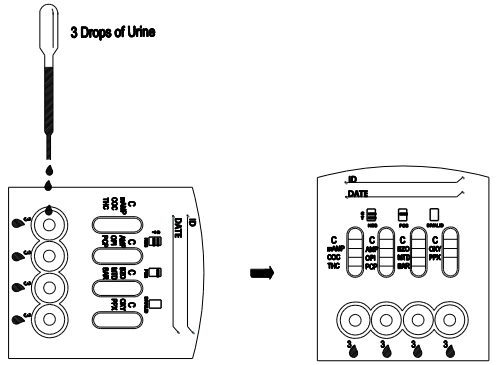
1. Remove the test card from the sealed pouch and dip the card into the specimen for at least 15 seconds to 20 seconds or until migration occurs. Immerse the strip (s) of the test card just below the top line of the wave line on the test strips; do not dip the card above the top line.
2. Place the test card on a flat dry surface.
3. Read the adulteration strips between 3 to 5 minutes (when applicable) by comparing the colors in the adulteration pads to the enclosed color chart. If the specimen indicates adulteration, refer to your Drug Free Policy for guidelines on adultered specimens. We recommend not to interpret the drug test results and suggest you to retest the urine by using another specimen.
4. Wait for the colored line(s) to appear. Read the results of drug tests at 5 to 10 minutes, read the alcohol test result at 2 to 5 minutes.



For Drug Test Device:

Allow the test device, urine specimen (if refrigerated), and/or controls to equilibrate to room temperature (15-30℃) prior to testing.

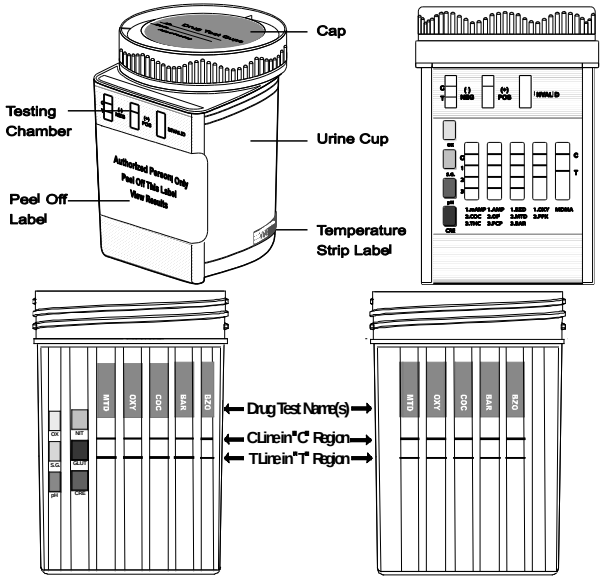
1. Bring the pouch to room temperature before opening it. Remove the test device from the sealed pouch and use it as soon as possible.
2. Place the test device on a clean and level surface. Hold the dropper vertically and transfer 3 full drops of urine (approx. 100 μL) to the specimen well (S) of the test device, and then start the timer. Avoid trapping air bubbles in the specimen well (S). See the illustration below.
3. Wait for the colored line(s) to appear. Read the results of drug tests at 5 to 10 minutes, read the alcohol test result at 2 to 5 minutes.



For Drug Test Cup:

Allow the cup, urine specimen (if refrigerated), and/or controls to equilibrate to room temperature (15-30℃) prior to testing.

1. Remove the cup from the sealed pouch and use it as soon as possible.
2. Collect specimen in the cup and secure the cap tightly.
3. If the temperature strip is included with Drug Test Cup, please read urine temperature between 2-4 minutes after voiding to verify the temperature ranges between 90–100℉(33-38℃).
4. Place the cup on a flat surface.
5. Date and initial the security seal, and place the security seal on the cap.
6. Peel off the label on the cup to view the results.
7. If adulteration test is included on the test cup, read the adulteration test results between 2 to 5 minutes. See the color chart for interpretation. If the specimen indicates adulteration, we recommend not to interpret the drug test results and either retest the urine or collect another specimen.
8. Wait for the colored line(s) to appear. Read the results of drug tests at 5 to 10 minutes, read the alcohol test result at 2 to 5 minutes. See the illustration below. For detailed operation instructions, please refer to the Procedure Card.



INTERPRETATION OF RESULTS

Positive: One colored line appears in the Control zone (C). No line appears in the Test Zone (T). The absence of a line in the test region (T line) indicates a positive result. The positive result indicates that the drug level is above the detectable level.

Note: The samples with positive results should be confirmed with more specific method.

Negative: One colored line appears in the Control zone, and another colored line appears in the Test zone. The negative result indicates the drug or its metabolite level is below the detectable level.

Invalid: No line appears in the Control zone. If no C line or no C line and T line develop within 5 to 10 minutes, the test is invalid. The test should be repeated with a new test device. Insufficient specimen volume or the incorrect procedural techniques are the most likely reasons for invalid result. Review the procedure and repeat the test using a new test strip or device. If the problem persists, discontinue using the current lot and contact your suppliers.

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: Blue or green 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 ascribed to insufficient sampling. The subject should be re-tested.

ADULTERATION INTERPRETATION

(Please refer to the color chart, if applicable)

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

QUALITY CONTROL

1. Built-in Control: the test contains a built-in control feature, the C line. The presence of the C line indicates that the test is performed properly. If a C line does not form, the test is considered invalid. In this case, the testing should be repeated with a new drug tests.
2. External Quality Control: Control materials are not supplied with this kit. However, it is recommended that positive and negative controls should be tested as good laboratory practice to confirm the test procedure and to verify proper test performance.
3. Test each new lot and shipment by using external quality control materials (positive and negative), with each new untrained operator, monthly for storage, and as otherwise required by your lab internal quality system procedures.

S.V.T. ADULTERATIONS LIMITATIONS

1. The adulteration tests included with the product are meant to aid in the determination of abnormal specimens. While comprehensive, these tests are not meant to be an "all-inclusive" representation of possible adulterants.
2. Oxidants/PCC: Normal human urine should not contain oxidants or PCC. The presence of high levels of antioxidants in the specimen, such as ascorbic acid, may result in false negative results for the oxidants/PCC pad.
3. Specific Gravity: Elevated levels of protein in urine may cause abnormally high specific gravity values.
4. 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 outside of this range may indicate the sample has been altered.
5. 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 > 20 mg/dL may produce false positive glutaraldehyde results.
6. Glutaraldehyde: is not normally found in urine. However certain metabolic abnormalities such as ketoacidosis (fasting, uncontrolled diabetes or high protein diets) may interfere with the test results.
7. Creatinine: Normal Creatinine levels are between 20 and 350 mg/dL. Under rare conditions, certain kidney diseases may show dilute urine.

LIMITATIONS

1. **Drug Tests (Strip/Card/Device/Cup)** provides only a qualitative, preliminary testing result. A more specific testing method must be used in order to obtain a confirmed testing result. Gas Chromatography/Mass Spectrometry (GC/MS) is the preferred confirmatory method.
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 or other oxidizing agents may produce erroneous results. If suspected, the test should be repeated with a fresh specimen and a new drug tests.
4. The urine specimens with bacterial contamination should not be used for testing, as these contaminations may interfere with the test and cause false results.
5. A positive result does not indicate the level of intoxication, the route of the drug administration or the concentration of the drug in the urine.
6. 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 test.
7. Test does not distinguish between drugs of abuse and certain medications.
8. Certain foods or food supplements may cause a false positive result.

PERFORMANCE CHARACTERISTICS

Sensitivity:

Sensitivity of **Drug Tests (Strip/Card/Device/Cup)** was characterized by validating the test performance around the claimed cut-off concentration of each test. The cut-off of each test was determined by the lowest concentration of drug which produces at least 50% positive testing results in total numbers of determinations. The results were summarized as the following:

Drug concentration Cut-off Range	n	AMP 1000		AMP 500		AMP 300		AMP 100	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	20	0	18	2	20	0
+25% Cut-off	20	0	20	1	19	0	20	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	APAP 5000		APAP 2000		BAR 300		BAR 200	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	18	2	19	1	20	0	20	0
+25% Cut-off	20	0	20	4	16	0	20	1	19
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	BZO 300		BZO 200		BZO 150		BZO 100	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	19	1	20	0	20	0
+25% Cut-off	20	0	20	1	19	3	17	7	13
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	BZO 50		BUP 10		BUP 5		CAF	
		-	+	-	-	-	+	-	+
0% Cut-off	20	20	0	20	20	20	0	20	0
-50% Cut-off	20	20	0	20	20	20	0	20	0
-25% Cut-off	20	17	3	20	20	20	0	18	2
+25% Cut-off	20	9	11	0	20	0	20	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	CFYL		CLZP		COC 300		COC 200	
		-	-	-	+	-	+	-	+
0% Cut-off	20	20	20	20	0	20	0	20	0
-50% Cut-off	20	20	20	20	0	20	0	20	0
-25% Cut-off	20	20	20	20	0	20	0	20	0
+25% Cut-off	20	0	0	1	19	20	0	20	0
+50% Cut-off	20	0	0	0	20	20	0	20	0

Drug concentration Cut-off Range	n	COC 150		COC 100		COC 50		COC 10	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	18	2	18	2	20	0	17	3
+25% Cut-off	20	20	0	7	13	0	20	0	20
+50% Cut-off	20	20	0	0	20	0	20	0	20

Drug concentration Cut-off Range	n	COT		EDDP 300		EDDP 100		ETG 1000	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	20	0	20	0	20	0
+25% Cut-off	20	0	20	0	20	6	14	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	ETG 500		ETG 300		FEN 300		FEN 200	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	20	0	19	1	20	0
+25% Cut-off	20	7	13	7	13	0	20	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	FEN 100		FEN 50		FEN 20		FEN 10	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	19	1	20	0	20	0	20	0
+25% Cut-off	20	0	20	0	20	6	14	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	FEN 2		FEN 1		GBPT 2000		GBPT 1000	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	20	0	20	0	20	0
+25% Cut-off	20	0	20	2	18	5	15	0	20
+50% Cut-off	20	0	20	2	18	0	20	0	20

Drug concentration Cut-off Range	n	HDCD		K2-50		K2-25		K2-20	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	18	2	20	0	17	3
+25% Cut-off	20	0	20	2	18	5	15	3	17
+50% Cut-off	20	0	20	0	20	0	20	1	19

Drug concentration Cut-off Range	n	K3 300		K3 25		K4		KET 1000	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	18	2	20	0	20	0	19	1
+25% Cut-off	20	0	20	0	20	0	20	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	KET 500		KET 300		KET 100		KRA 500	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	20	0	18	2	20	0
+25% Cut-off	20	0	20	1	19	0	20	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	KRA 300		KRA 250		KRA 100		KRA 25	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	20	0	20	0	20	0
+25% Cut-off	20	0	20	0	20	0	20	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	LSD 10		LSD 3		MCAT		MTD 500	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	17	3	17	3	20	0	20	0
+25% Cut-off	20	0	20	0	20	0	20	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	MTD 300		MTD 200		MTD 150		MTD 50	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	20	0	20	0	20	0
+25% Cut-off	20	0	20	1	19	0	20	8	12
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	mAMP 1000		mAMP 500		mAMP 300		mAMP 100	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	20	0	20	0	20	0
+25% Cut-off	20	0	20	0	20	0	20	7	13
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	MDMA 500		MDMA 300		MDMA 100		MDPV 500	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	17	3	20	0	19	1
+25% Cut-off	20	0	20	4	16	0	20	7	13
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	MDPV 300		MEP		MQL		MTHP	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	20	20	0	20	0	20	0
-50% Cut-off	20	20	20	20	0	20	0	20	0
-25% Cut-off	20	19	1	20	0	20	0	20	0
+25% Cut-off	20	2	18	0	20	7	13	7	13
+50% Cut-off	20	0	0	0	20	0	20	0	20

Drug concentration Cut-off Range	n	MOP		OPI 2000		OPI 200		OPI 100	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	20	0	17	3	20	0
+25% Cut-off	20	0	20	0	20	4	16	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	OPI 50		OXY 300		OXY 100		PCP	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	18	2	20	0	20	0
+25% Cut-off	20	0	20	0	20	0	20	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	PPX 300		PPX 100		PGB		THC 600	
		-	+	-	-	-	+	-	+
0% Cut-off	20	20	0	20	20	20	0	20	0
-50% Cut-off	20	20	0	20	20	20	0	20	0
-25% Cut-off	20	20	0	20	20	20	0	20	0
+25% Cut-off	20	0	20	0	0	0	20	0	20
+50% Cut-off	20	0	20	0	0	0	20	0	20

Drug concentration Cut-off Range	n	THC 300		THC 200		THC 100		THC 50	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	3	17	20	0	20	0
+25% Cut-off	20	0	20	1	19	0	20	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	THC 40		THC 25		THC 20		THC 15	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	16	4	20	0	16	4
+25% Cut-off	20	3	17	1	19	3	17	1	19
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration	n	THC 10		THC 5		TRA 300		TRA 200	

Cut-off Range		-	+	-	-	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	16	4	17	3	19	1	20	0
+25% Cut-off	20	3	17	2	18	0	20	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	TRA 100		TCA 1000		TCA 100		ZOLP	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	18	2	20	0	20	0	19	1
+25% Cut-off	20	0	20	0	20	0	20	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Drug concentration Cut-off Range	n	ZOP		6-MAM		SOMA		XYL 1000	
		-	+	-	+	-	+	-	+
0% Cut-off	20	20	0	20	0	20	0	20	0
-50% Cut-off	20	20	0	20	0	20	0	20	0
-25% Cut-off	20	20	0	20	0	20	0	19	1
+25% Cut-off	20	3	17	3	17	0	20	0	20
+50% Cut-off	20	0	20	0	20	0	20	0	20

Alcohol Test : The following data were obtained based on 56 clinical samples.

	>0.04% (Spiked)	0	Sensitivity	Specifity	Agreement
Strip Test(+)	26	0	96%	100%	98%
Strip Test(-)	1	29			

Based on above data, sensitivity of the assay to the 42 analytes is as follows:

Amphetamine 1000:	1000 ng/mL	Kratom 25	25 ng/mL
Amphetamine 500:	500 ng/mL	Lysergic Acid Diethylamide 10:	10 ng/mL
Amphetamine 300:	300 ng/mL	Lysergic Acid Diethylamide 3:	3 ng/mL
Amphetamine 100:	300 ng/mL	Methcathinone	1000 ng/mL
Acetaminophen 5000:	5000 ng/mL	Methadone 500:	500 ng/mL
Acetaminophen 2000:	2000 ng/mL	Methadone 300:	300 ng/mL
Barbiturates 300:	300 ng/mL	Methadone 200:	200 ng/mL
Barbiturates 200:	200 ng/ mL	Methadone 150:	150 ng/mL
Benzodiazepines 300:	300 ng/ mL	Methadone 50:	50 ng/mL
Benzodiazepines 200:	200 ng/ mL	Methamphetamine 1000:	1000 ng/mL
Benzodiazepines 150:	150 ng/mL	Methamphetamine 500:	500 ng/mL
Benzodiazepines 100:	100 ng/mL	Methamphetamine 300:	300 ng/mL
Benzodiazepines 50:	50 ng/mL	Methamphetamine 100:	100 ng/mL
Buprenorphine 10:	10 ng/mL	Methylenedioxymethamphetamine 500:	500 ng/mL
Buprenorphine 5:	5 ng/mL	Methylenedioxymethamphetamine 300:	300 ng/mL
Caffeine	8000 ng/mL	Methylenedioxymethamphetamine 100:	100 ng/mL
Carfentanyl	500 ng/mL	Methylenedioxypyrovalerone 500:	500 ng/mL
Klonopin 300:	300 ng/mL	Methylenedioxypyrovalerone 300:	300 ng/mL
Cocaine 300:	300 ng/mL	Mephedrone	500 ng/mL
Cocaine 200	200 ng/mL	Methaqualone 300:	300 ng/mL
Cocaine 150:	150 ng/mL	Methylphenidate 300:	300 ng/mL
Cocaine 100:	100 ng/mL	Morphine 300:	300 ng/mL
Cocaine 50:	50 ng/mL	Opiates 2000:	2000 ng/mL
Cocaine 10:	10 ng/mL	Opiates 200:	200 ng/mL
Cotinine 200:	200 ng/mL	Opiates 100:	100 ng/mL
EDDP 300:	300 ng/mL	Opiates 50:	50 ng/mL
EDDP 100:	100 ng/mL	Oxycodone 300:	300 ng/mL
Ethyl Glucuronide 1000:	1000 ng/mL	Oxycodone 100:	100 ng/mL
Ethyl Glucuronide 500:	500 ng/mL	Phencyclidine 25:	25 ng/mL
Ethyl Glucuronide 300:	300 ng/mL	Propoxyphene 300:	300 ng/mL
Fentanyl 300:	300 ng/mL	Propoxyphene 100:	100 ng/mL
Fentanyl 200:	200 ng/mL	Pregabalin 500:	500 ng/mL
Fentanyl 100:	100 ng/mL	Marijuana 600:	600 ng/mL
Fentanyl 50:	50 ng/mL	Marijuana 300:	300 ng/mL
Fentanyl 20:	20 ng/mL	Marijuana 200:	200 ng/mL
Fentanyl 10:	10 ng/mL	Marijuana 100:	100 ng/mL
Fentanyl 2:	2 ng/mL	Marijuana 50:	50 ng/mL
Fentanyl 1:	1 ng/mL	Marijuana 40:	40 ng/mL
Gabapentin 2000:	2000 ng/mL	Marijuana 25	25 ng/mL
Gabapentin 1000:	1000 ng/mL	Marijuana 20:	20 ng/mL
Hydrocodone 100:	100 ng/mL	Marijuana 15:	15ng/mL
K2-50:	50 ng/mL	Marijuana 10:	10 ng/mL
K2-25:	25 ng/mL	Marijuana 5:	5 ng/mL
K2-20:	20 ng/mL	Tramadol 300:	300 ng/mL
AB-PINACA 300:	300 ng/mL	Tramadol 200:	200 ng/mL
AB-PINACA 25:	25 ng/mL	Tramadol 100:	100 ng/mL
UR-144	10 ng/mL	Tricyclic Antidepressants 1000:	1000 ng/mL
Ketamine 1000:	1000 ng/mL	Tricyclic Antidepressants 100:	100 ng/mL
Ketamine 500:	500 ng/mL	Zolpidem 10	10 ng/mL
Ketamine 300:	300 ng/mL	Zopiclone 50	50 ng/mL
Ketamine 100:	100 ng/mL	6-Monoacetylmorphine	10 ng/mL
Kratom 500	500 ng/mL	Carisoprodol	1000 ng/mL
Kratom 300	300 ng/mL	Xylazine	1000 ng/mL
Kratom 250	250 ng/mL	Alcohol	0.0004
Kratom 100	100 ng/mL		

Precision / Reproducibility:

Reproducibility was determined by replicating tests on five different concentrations of each drug in urine specimens: negative, 50% below cut-off, 25% below cut-off, 25% above cut-off and 50% above cut-off. Each drug test was tested four times daily for five consecutive days with a total 20 assays at each concentration. The data are summarized below:

Amphetamine 1000 Precision /Reproducibility Study:

Amphetamine 1000 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
500	20	20/0	100%
750	20	20/0	100%
1250	20	0/20	100%
1500	20	0/20	100%

Amphetamine 500 Precision /Reproducibility Study:

Amphetamine 500 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
250	20	20/0	100%
375	20	20/0	100%
625	20	0/20	100%
750	20	0/20	100%

Amphetamine 300 Precision /Reproducibility Study:

Amphetamine 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	18/2	90%
375	20	0/20	100%
450	20	0/20	100%

Amphetamine 100 Precision /Reproducibility Study:

Amphetamine100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	20/0	100%
125	20	0/20	100%
150	20	0/20	100%

APAP 5000 Precision/Reproducibility Study:

APAP 5000 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
2500	20	20/0	100%
3750	20	17/3	85%
6250	20	0/20	100%
7500	20	0/20	100%

APAP 2000 Precision/Reproducibility Study:

APAP 2000 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
1000	20	20/0	100%
1500	20	19/1	95%
2500	20	4/16	80%
3000	20	0/20	100%

Barbiturates 300 Precision/Reproducibility Study:

Barbiturates 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%

150	20	20/0	100%
225	20	20/0	100%
375	20	0/20	100%
450	20	0/20	100%

Barbiturates 200 Precision/Reproducibility Study:

Barbiturates 200 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
100	20	20/0	100%
150	20	20/0	100%
250	20	1/19	95%
300	20	0/20	100%

Benzodiazepines 300 Precision/Reproducibility Study:

Benzodiazepines 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	0/20	100%
450	20	0/20	100%

Benzodiazepines 200 Precision/Reproducibility Study:

Benzodiazepines 200 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
100	20	20/0	100%
150	20	19/1	95%
250	20	1/19	95%
300	20	0/20	100%

Benzodiazepines 150 Precision/Reproducibility Study:

Benzodiazepines 150 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
75	20	20/0	100%
112.5	20	20/0	100%
187.5	20	3/17	85%
225	20	0/20	100%

Benzodiazepines 100 Precision/Reproducibility Study:

Benzodiazepines 100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	20/0	100%
125	20	7/13	65%
150	20	0/20	100%

Benzodiazepines 50 Precision/Reproducibility Study:

Benzodiazepines 50 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
25	20	20/0	100%
37.5	20	17/3	85%
62.5	20	1/19	95%
75	20	0/20	100%

Buprenorphine 10 Precision/Reproducibility Study:

Buprenorphine 10 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
5	20	20/0	100%
7.5	20	20/0	100%
12.5	20	0/20	100%
15	20	0/20	100%

Buprenorphine 5 Precision/Reproducibility Study:

Buprenorphine 5 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
2.5	20	20/0	100%
3.75	20	20/0	100%
6.25	20	9/11	55%
7.5	20	0/20	100%

Caffeine Precision/Reproducibility Study:

Caffeine Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
4000	20	20/0	100%
6000	20	20/0	100%
10000	20	0/20	100%
12000	20	0/20	100%

CFYL Precision/Reproducibility Study:

CFYL Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	20/0	100%
125	20	0/20	100%
150	20	0/20	100%

CLZP Precision/Reproducibility Study:

CLZP Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	1/19	95%
450	20	0/20	100%

Cocaine 300 Precision/Reproducibility Study:

Cocaine 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	0/20	100%
450	20	0/20	100%

Cocaine 200 Precision/Reproducibility Study:

Cocaine200 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
75	20	20/0	100%
112.5	20	20/0	100%
187.5	20	0/20	100%
225	20	0/20	100%

Cocaine 150 Precision/Reproducibility Study:

Cocaine 150 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
75	20	20/0	100%
112.5	20	20/0	100%
187.5	20	0/20	100%
225	20	0/20	100%

Cocaine 100 Precision/Reproducibility Study:

Cocaine100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	18/2	90%
125	20	7/13	65%
150	20	0/20	100%

Cocaine 50 Precision/Reproducibility Study:

Cocaine50 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
25	20	20/0	100%
37.5	20	20/0	100%
62.5	20	0/20	100%
75	20	0/20	100%

Cocaine 10 Precision/Reproducibility Study:

Cocaine10 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
5	20	20/0	100%
7.5	20	16/4	80%
12.5	20	0/20	100%
15	20	0/20	100%

Cotinine Precision/Reproducibility Study:

Cotinine Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
100	20	20/0	100%
150	20	15/5	75%
250	20	4/16	80%
300	20	0/20	100%

EDDP 300 Precision/Reproducibility Study:

EDDP 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	0/20	100%
450	20	0/20	100%

EDDP 100 Precision/Reproducibility Study:

EDDP 100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	20/0	100%
125	20	6/14	70%
150	20	0/20	100%

ETG 1000 Precision/Reproducibility Study:

ETG 1000 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
250	20	20/0	100%
375	20	20/0	100%
625	20	0/20	100%
750	20	0/20	100%

ETG 500 Precision/Reproducibility Study:

ETG 500 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
250	20	20/0	100%
375	20	20/0	100%
625	20	7/13	65%
750	20	0/20	100%

ETG 300 Precision/Reproducibility Study:

ETG 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	7/13	65%
450	20	0/20	100%

FEN 300 Precision/Reproducibility Study:

FEN 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	0/20	100%
450	20	0/20	100%

FEN 200 Precision/Reproducibility Study:

FEN 200 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
100	20	20/0	100%
150	20	20/0	100%
250	20	0/20	100%
300	20	0/20	100%

FEN 100 Precision/Reproducibility Study:

FEN 100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	20/0	100%
125	20	4/16	80%
150	20	0/20	100%

FEN 50 Precision/Reproducibility Study:

FEN 50 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
25	20	20/0	100%
37.5	20	20/0	100%
62.5	20	0/20	100%
75	20	0/20	100%

FEN 20 Precision/Reproducibility Study:

FEN 20 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
10	20	20/0	100%
15	20	20/0	100%
25	20	8/12	60%
30	20	1/19	95%

FEN 10 Precision/Reproducibility Study:

FEN 10 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%

10	20	20/0	100%
15	20	20/0	100%
25	20	8/12	60%
30	20	1/19	95%

FEN 2 Precision/Reproducibility Study:

FEN 2 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
1	20	20/0	100%
1.5	20	20/0	100%
2.5	20	0/20	100%
3	20	0/20	100%

FEN 1 Precision/Reproducibility Study:

FEN 1 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
0.5	20	20/0	100%
0.75	20	20/0	100%
1.25	20	2/18	90%
1.5	20	2/18	90%

GBPT 2000 Precision/Reproducibility Study:

GBPT 2000 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
1000	20	20/0	100%
1500	20	20/0	100%
2500	20	6/14	70%
3000	20	0/20	100%

GBPT 1000 Precision/Reproducibility Study:

GBPT 1000 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
500	20	20/0	100%
750	20	20/0	100%
1250	20	0/20	100%
1500	20	0/20	100%

HDCD/Hydrocodone Precision/Reproducibility Study:

HDCD Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	20/0	100%
125	20	0/20	100%
150	20	0/20	100%

K2-50 Precision/Reproducibility Study:

K2-50 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
25	20	20/0	100%
37.5	20	18/2	90%
62.5	20	2/18	90%
75	20	0/20	100%

K2-25 Precision/Reproducibility Study:

K2-25 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
12.5	20	20/0	100%
18.75	20	20/0	100%
31.25	20	5/15	75%
37.5	20	0/20	100%

K2-20 Precision/Reproducibility Study:

K2 -20 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
10	20	20/0	100%
15	20	17/3	85%
25	20	3/17	85%
30	20	1/19	95%

K3 300 Precision/Reproducibility Study:

K3 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	0/20	100%
450	20	0/20	100%

K3 25 Precision/Reproducibility Study:

K3 25 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
12.5	20	20/0	100%
18.75	20	20/0	100%
31.25	20	0/20	100%
37.5	20	0/20	100%

K4 10 Precision/Reproducibility Study:

K4 10 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
5	20	20/0	100%
7.5	20	20/0	100%
12.5	20	0/20	100%
15	20	0/20	100%

KET 1000 Precision/Reproducibility Study:

KET 1000 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
500	20	20/0	100%
750	20	19/1	95%
1250	20	0/20	100%
1500	20	0/20	100%

KET 500 Precision/Reproducibility Study:

KET 500 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
250	20	20/0	100%
375	20	20/0	100%
625	20	0/20	100%
750	20	0/20	100%

KET 300 Precision/Reproducibility Study:

KET 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	1/19	95%
450	20	0/20	100%

KET 100 Precision/Reproducibility Study:

KET 100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	19/1	95%
125	20	0/20	100%
150	20	0/20	100%

KRA 500 Precision/Reproducibility Study:

KRA 500 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
250	20	20/0	100%
375	20	20/0	100%
625	20	0/20	100%
750	20	0/20	100%

KRA 300 Precision/Reproducibility Study:

KRA 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	0/20	100%
450	20	0/20	100%

KRA 250 Precision/Reproducibility Study:

KRA 250 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
375	20	20/0	100%
312.5	20	20/0	100%
187.5	20	0/20	100%
125	20	0/20	100%

KRA 100 Precision/Reproducibility Study:

KRA 100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	20/0	100%
125	20	0/20	100%
150	20	0/20	100%

KRA 25 Precision/Reproducibility Study:

KRA 25 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
12.5	20	20/0	100%
18.75	20	20/0	100%
31.25	20	0/20	100%
37.5	20	0/20	100%

LSD 10 Precision/Reproducibility Study:

LSD 10 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
5	20	20/0	100%
7.5	20	17/3	85%
12.5	20	0/20	100%
15	20	0/20	100%

LSD 3 Precision/Reproducibility Study:

LSD 3 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
1.5	20	20/0	100%
2.25	20	17/3	85%
3.75	20	0/20	100%
4.5	20	0/20	100%

MCAT 1000 Precision/Reproducibility Study:

MCAT 1000 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
500	20	20/0	100%
750	20	20/0	100%
1250	20	0/20	100%
1500	20	0/20	100%
500	20	20/0	100%

Methadone 500 Precision/Reproducibility Study:

Methadone500 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
250	20	20/0	100%
375	20	20/0	100%
625	20	0/20	100%
750	20	0/20	100%

Methadone 300 Precision/Reproducibility Study:

Methadone 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	0/20	100%
450	20	0/20	100%

Methadone 200 Precision/Reproducibility Study:

Methadone200 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
100	20	20/0	100%
150	20	20/0	100%
250	20	1/19	95%
300	20	0/20	100%

Methadone 150 Precision/Reproducibility Study:

Methadone150 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
75	20	20/0	100%
112.5	20	20/0	100%
187.5	20	0/20	100%
225	20	0/20	100%

Methadone 50 Precision/Reproducibility Study:

Methadone50 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
25	20	20/0	100%
37.5	20	20/0	100%
62.5	20	8/12	60%
75	20	0/20	100%

Methamphetamine 1000 Precision/Reproducibility Study:

Methamphetamine 1000 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
500	20	20/0	100%

750	20	20/0	100%
1250	20	0/20	100%
1500	20	0/20	100%

Methamphetamines 500 Precision/Reproducibility Study:

Methamphetamines500 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
250	20	20/0	100%
375	20	20/0	100%
625	20	0/20	100%
750	20	0/20	100%

Methamphetamines 300 Precision/Reproducibility Study:

Methamphetamines300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	0/20	100%
450	20	0/20	100%

Methamphetamines 100 Precision/Reproducibility Study:

Methamphetamines100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	20/0	100%
125	20	7/13	65%
150	20	0/20	100%

Methylenedioxymethamphetamine 500 Precision/Reproducibility Study:

MDMA Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
250	20	20/0	100%
375	20	20/0	100%
625	20	0/20	100%
750	20	0/20	100%

Methylenedioxymethamphetamine 300 Precision/Reproducibility Study:

Methylenedioxy-methamphetamine300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	17/3	85%
375	20	4/16	80%
450	20	0/20	100%

Methylenedioxymethamphetamine 100 Precision/Reproducibility Study:

Methylenedioxy-methamphetamine100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	20/0	100%
125	20	0/20	100%
150	20	0/20	100%

MDPV 500 Precision/Reproducibility Study:

MDPV 500 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
250	20	20/0	100%
375	20	19/1	95%
625	20	1/19	95%
750	20	0/20	100%

MDPV 300 Precision/Reproducibility Study:

MDPV 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	19/1	95%
375	20	2/18	90%
450	20	0/20	100%

MEP 500 Precision/Reproducibility Study:

MEP 500 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
250	20	20/0	100%
375	20	20/0	100%
625	20	0/20	100%
750	20	0/20	100%

MQL Precision/Reproducibility Study:

MQL Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	18/2	90%
375	20	1/19	95%
450	20	0/20	100%

MTHP Precision/Reproducibility Study:

MTHP Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	7/13	65%
450	20	0/20	100%

Opiates 300 Precision/Reproducibility Study:

Opiates 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	0/20	100%
450	20	0/20	100%

Opiates 2000 Precision/Reproducibility Study:

Opiates 2000 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
1000	20	20/0	100%
1500	20	20/0	100%
2500	20	0/20	100%
3000	20	0/20	100%

Opiates 200 Precision/Reproducibility Study:

Opiates200 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
100	20	20/0	100%
150	20	18/2	90%
250	20	0/20	100%
300	20	0/20	100%

Opiates 100 Precision/Reproducibility Study:

Opiates100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	14/6	70%
125	20	0/20	100%
150	20	0/20	100%

Opiates 50 Precision/Reproducibility Study:

Opiates50 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
25	20	20/0	100%
37.5	20	13/7	65%
62.5	20	0/20	100%
75	20	0/20	100%

Oxycodone 300 Precision/Reproducibility Study:

Oxycodone300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	18/2	90%
375	20	0/20	100%
450	20	0/20	100%

Oxycodone 100 Precision/Reproducibility Study:

Oxycodone Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	20/0	100%
125	20	0/20	100%
150	20	0/20	100%

Phencyclidine Precision/Reproducibility Study:

Phencyclidine Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
12.5	20	20/0	100%
18.75	20	20/0	100%
31.25	20	0/20	100%
37.5	20	0/20	100%

Propoxyphene 300 Precision /Reproducibility Study:

Propoxyphene 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	0/20	100%
450	20	0/20	100%

Propoxyphene 100 Precision/Reproducibility Study:

Propoxyphene 100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	20/0	100%
125	20	0/20	100%
150	20	0/20	100%

PGB Precision/Reproducibility Study:

PGB Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
250	20	20/0	100%
375	20	20/0	100%
625	20	0/20	100%
750	20	0/20	100%

Marijuana 600 Precision/Reproducibility Study:

Marijuana600 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
300	20	20/0	100%
450	20	20/0	100%
750	20	0/20	100%
900	20	0/20	100%

Marijuana 300 Precision/Reproducibility Study:

Marijuana 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	20/0	100%
375	20	0/20	100%
450	20	0/20	100%

Marijuana 200 Precision/Reproducibility Study:

Marijuana 200 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
100	20	20/0	100%
150	20	17/3	85%
250	20	1/19	95%
300	20	0/20	100%

Marijuana 100 Precision/Reproducibility Study:

Marijuana 100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	20/0	100%
125	20	0/20	100%
150	20	0/20	100%

Marijuana 50 Precision/Reproducibility Study:

Marijuana 50 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
25	20	20/0	100%
37.5	20	20/0	100%
62.5	20	0/20	100%
75	20	0/20	100%

Marijuana 40 Precision/Reproducibility Study:

Marijuana40 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
20	20	20/0	100%
30	20	20/0	100%
50	20	3/17	85%
60	20	0/20	100%

Marijuana 25 Precision/Reproducibility Study:

Marijuana25 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
12.5	20	20/0	100%

18.75	20	16/4	80%
31.25	20	1/19	95%
37.5	20	0/20	100%

Marijuana 20 Precision/Reproducibility Study:

Marijuana20 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
10	20	20/0	100%
15	20	16/4	80%
25	20	1/19	95%
30	20	0/20	100%

Marijuana 15 Precision/Reproducibility Study:

Marijuana15 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
7.5	20	20/0	100%
11.25	20	20/0	100%
18.75	20	0/20	100%
22.5	20	0/20	100%

Marijuana 10 Precision/Reproducibility Study:

Marijuana10 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
5	20	20/0	100%
7.5	20	16/4	80%
12.5	20	3/17	85%
15	20	0/20	100%

Marijuana 5 Precision/Reproducibility Study:

Marijuana5 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
2.5	20	20/0	100%
3.75	20	17/3	85%
6.25	20	2/18	90%
7.5	20	0/20	100%

TRA 300 Precision/Reproducibility Study:

TRA 300 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
150	20	20/0	100%
225	20	19/1	95%
375	20	0/20	100%
450	20	0/20	100%

TRA 200 Precision/Reproducibility Study:

TRA 200 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
100	20	20/0	100%
150	20	20/0	100%
250	20	0/20	100%
300	20	0/20	100%

TRA 100 Precision/Reproducibility Study:

TRA 100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	18/2	90%
125	20	0/20	100%
150	20	0/20	100%

Tricyclic Antidepressants 1000 Precision/Reproducibility Study:

Tricyclic Antidepressants 1000 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
500	20	20/0	100%
750	20	20/0	100%
1250	20	0/20	100%
1500	20	0/20	100%

Tricyclic Antidepressants 100 Precision/Reproducibility Study:

Tricyclic Antidepressants 100 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
50	20	20/0	100%
75	20	20/0	100%
125	20	0/20	100%
150	20	0/20	100%

ZOLP Precision/Reproducibility Study:

ZOLP Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
5	20	20/0	100%
7.5	20	19/1	95%
12.5	20	0/20	100%
15	20	0/20	100%

ZOP Precision/Reproducibility Study:

ZOP Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
25	20	20/0	100%
37.5	20	20/0	100%
62.5	20	0/20	100%
75	20	0/20	100%

6-MAM Precision/Reproducibility Study:

6-MAM Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
5	20	20/0	100%
7.5	20	20/0	100%
12.5	20	3/17	85%
15	20	0/20	100%

SOMA Precision/Reproducibility Study:

SOMA Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
500	20	20/0	100%
750	20	20/0	100%
1250	20	0/20	100%
1500	20	0/20	100%

XYL 1000 Precision/Reproducibility Study:

XYL 1000 Concentration (ng/mL)	Total numbers of Determinations	Results #Neg/#Pos	Precision (%)
0	20	20/0	100%
500	20	20/0	100%
750	20	20/0	100%
1250	20	0/20	100%
1500	20	0/20	100%

The data presented here demonstrates excellent precision/ reproducibility of **Drug Tests (Strip/Card/Device/Cup)** across multiple concentrations of human urine.

Analytical Specificity:

Cross-reactivity was established by spiking various concentrations of similarly structured drug compounds into drug-free urine /a negative control. Analyzing various concentration of each compound by using **Drug Tests (Strip/Card/Device/Cup)**, the concentration of the drug that produced a response approximately equivalent to the cut-off concentration of the assay was determined. Results of those studies appear in the table(s) below:

Drug Compound	Response equivalent to cutoff in ng/mL
AMPHETAMINE 1000 (AMP)	
S(+)-Amphetamine	1000
(±)-Amphetamine	500
R(-)-Amphetamine	50000
S(+)-Methamphetamine	>100000
R(-)-Methamphetamine	>100000
(±)-MDA	2000
(±)-MDEA	100000
Ephedrine	>100000
AMPHETAMINE 500 (AMP)	
S(+)-Amphetamine	500
R(-)-Amphetamine	10000
S(+)-Methamphetamine	>100000
R(-)-Methamphetamine	>100000
(±)-MDA	2500
(±)-MDEA	100000
Ephedrine	>100000
AMPHETAMINE 300 (AMP)	
D-Amphetamine	300
D,L-Amphetamine	850
L-Amphetamine	17500
D-Methamphetamine	100000
L-Methamphetamine	>100000
(±) 3,4-Methylethyenedioxyamphetamine (MDA)	650
Ephedrine	>100000
3,4-Methylenedioxyethyamphetamine (MDEA)	>100000
AMPHETAMINE 100 (AMP)	
S(+)-Amphetamine	100
R(-)-Amphetamine	12500
S(+)-Methamphetamine	100000
R(-)-Methamphetamine	100000
(±)-MDA	125
(±)-MDEA	100000
Ephedrine	100000
Acetaminophen 5000 (APAP)	
Acetaminophen	5000
Acetaminophen 2000 (APAP)	
Acetaminophen	2000
BARBITURATES 300 (BAR)	
Secobarbital	300
Phenobarbital	4000
Butalbital	500
Pentobarbital	1000
Amobarbital	2500
Barbital	10000
Butabarbital	1500
BARBITURATES 200 (BAR)	
Secobarbital	200
Butalbital	1000
Pentobarbital	2000
Amobarbital	6000
Barbital	10000
Butabarbital	1500
Secobarbital	200
Butalbital	1000
Pentobarbital	2000
BENZODIAZEPINES 300 (BZO)	
Oxazepam	300
Alprazolam	50
α-Hydroxyalprazolam	750
Bromazepam	125
Chlordiazepoxide	5000
Clobazam	50
Clonazepam	100000
Clorazepate	250
Diazepam	25
Estazolam	25
Flunitrazepam	150
Lorazepam	>100000
Midazolam	25000
Nitrazepam	100
Nordiazepam	500
Temazepam	25
Triazolam	750
BENZODIAZEPINES 200 (BZO)	
Oxazepam	200
Alprazolam	100
α-Hydroxyalprazolam	1000
Bromazepam	1000
Chlordiazepoxide	1000
Clobazam	30
Clonazepam	1500
Diazepam	1000
Flunitrazepam	125
Lorazepam	6000
Midazolam	50000
Nitrazepam	1000
Nordiazepam	125
Temazepam	100
Triazolam	12500
Estazolam	40
BENZODIAZEPINES 150 (BZO)	
Oxazepam	150
Alprazolam	100
α-Hydroxyalprazolam	500
Bromazepam	300
Chlordiazepoxide	500
Clobazam	25
Clonazepam	1000
Diazepam	80
Flunitrazepam	100
Lorazepam	6000
Midazolam	25000
Nitrazepam	1000
Nordiazepam	100
Temazepam	100
Triazolam	3000
Estazolam	30
BENZODIAZEPINES 100 (BZO)	
Oxazepam	100
Alprazolam	500

α-Hydroxyalprazolam	500
Bromazepam	250
Chlordiazepoxide	400
Clobazam	25
Clonazepam	500
Diazepam	80
Flunitrazepam	100
Lorazepam	5000
Midazolam	25000
Nitrazepam	1000
Nordiazepam	80
Temazepam	60
Triazolam	3000
Estazolam	30
BENZODIAZEPINES 50 (BZO)	
Oxazepam	50
Alprazolam	25
α-Hydroxyalprazolam	200
Bromazepam	100
Chlordiazepoxide	125
Clobazam	12.5
Clonazepam	250
Diazepam	50
Flunitrazepam	25
Lorazepam	1250
Midazolam	5000
Nitrazepam	400
Nordiazepam	40
Temazepam	50
Triazolam	500
Estazolam	20
Alprazolam	25
BUPRENORPHINE 10 (BUP)	
Buprenorphine	10
Buprenorphine-3beta-D-glucuronide	12.5
Norbuprenorphineglucuronide	10000
Norbuprenorphine	15
Morphine	>100000
Oxymorphone	>100000
Hydromorphone	>100000
Morphine-3beta-D-glucuronide	>100000
BUPRENORPHINE 5 (BUP)	
Buprenorphine	5
Norbuprenorphine	100
Buprenorphine-3-D-glucuronide	50
Norbuprenorphine-3-D-glucuronide	1000
Morphine-3-D-glucuronide	100000
Morphine	>100000
Oxymorphone	>100000
Hydromorphone	>100000
CAFFEINE (CAF)	
Caffeine	8000
Theophylline	>100000
Carfentanyl (CFYL)	
Carfentanyl	100
Theophylline	>100000
Klonopin (CLZP)	
α-Hydroxyalprazolam	10000
Bromazepam	10000
Clobazam	100000
Clonazepam	300
Diazepam	50000
Estazolam	5000
Flurazepam	5000
Lormetazepam	250
Lorazepam	50
Nordiazepam	10000
Oxazepam	40000
Temazepam	50000
COCAINE 300 (COC)	
CocaineHcl	10000
Benzoylecgonine	300
Ecgonine Hcl	100000
COCAINE 200 (COC)	
Benzoylecgonine	200
Ecgonine HCl	>100000
COCAINE 150 (COC)	
Benzoylecgonine	150
Cocaine	100
Ecgonine Hcl	100000
COCAINE 100 (COC)	
Benzoylecgonine	100
Ecgonine HCl	>100000

COCAINE 50 (COC)	
Benzoylecgonine	50
Ecgonine HCl	>100000
COCAINE 10 (COC)	
Benzoylecgonine	10
Ecgonine HCl	25000
COTININE (COT)	
Cotinine	200
Nicotine	6000
EDDP 300 (EDDP)	
2-ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine	300
Doxylamine	>100000
EDDP 100 (EDDP)	
2-ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine	100
Methadone	1250
Doxylamine	>100,000
Ethyl Glucuronide 1000 (ETG)	
Ethyl- β -D-Glucuronide	1000
Ethanol	>100,000
Propyl β-D-glucuronide	50000
Butanol	>100,000
Glucuronic Acid	>100,000
Methanol	>100,000
Morphine 3β-glucuronide	>100,000
Morphine 6β-glucuronide	>100,000
Ethyl Glucuronide 500 (ETG)	
Ethyl- β -D-Glucuronide	500
Ethanol	>100,000
Propyl β-D-glucuronide	50000
Butanol	>100,000
Glucuronic Acid	>100,000
Methanol	>100,000
Morphine 3β-glucuronide	>100,000
Morphine 6β-glucuronide	>100,000
Ethyl Glucuronide 300 (ETG)	
Ethyl- β -D-Glucuronide	300
Ethanol	>100,000
Propyl β-D-glucuronide	50000
Butanol	>100,000
Glucuronic Acid	>100,000
Methanol	>100,000
Morphine 3β-glucuronide	>100,000
Morphine 6β-glucuronide	>100,000
Fentanyl 300 (FEN)	
Fentanyl	300
Morphine	>100,000
Hydromorphone	>100,000
Oxycodone	>100,000
Oxymorphone	>100,000
Fentanyl 200 (FEN)	
Fentanyl	200
Morphine	>100,000
Hydromorphone	>100,000
Oxycodone	>100,000
Oxymorphone	>100,000
Fentanyl 100 (FEN)	
Fentanyl	100
NorFentanyl	50,000
Morphine	>100,000
Hydromorphone	>100,000
Oxycodone	>100,000
Oxymorphone	>100,000
Fentanyl 50 (FEN)	
Fentanyl	50
NorFentanyl	50,000
Morphine	>100,000
Hydromorphone	>100,000
Oxycodone	>100,000
Oxymorphone	>100,000
Fentanyl 20 (FEN)	
Fentanyl	20
Morphine	>100,000
Hydromorphone	>100,000
Oxycodone	>100,000
Oxymorphone	>100,000
Fentanyl 10 (FEN)	
Fentanyl	10
Morphine	>100,000
Hydromorphone	>100,000
Oxycodone	>100,000
Oxymorphone	>100,000
Fentanyl 2 (FEN)	
Fentanyl	2

Morphine	>100,000
Hydromorphone	>100,000
Oxycodone	>100,000
Oxymorphone	>100,000
Fentanyl 1 (FEN)	
Fentanyl	1
Morphine	>100,000
Hydromorphone	>100,000
Oxycodone	>100,000
Oxymorphone	>100,000
Gabapentin 2000 (GBPT)	
Pregabalin	100,000
Vigabatrin	>100,000
Gabapentin 1000 (GBPT)	
Pregabalin	>50,000
Vigabatrin	>100,000
HYDROCODONE (HDCD)	
Hydrocodone	100
Hydromorphone-3- β -D-Glucuronide	>100000
Normorphine	>100000
Hydrocodone-D6	1000
Hydrocodone-D3	125
Hydromorphone-D6	>50000
Hydromorphone-D3	>50000
Norhydrocodone-D3 HCL	25000
K2-50 (K2)	
JWH-018 N-(5-hydroxypentyl) metabolite	50
JWH-073 N-(4-hydroxybutyl) metabolite	50
JWH-018 pentanoic acid	50
JWH-073 butanoic acid	50
JWH-018	15,000
JWH-073	15,000
JWH 019 N-(5-hydroxyhexyl) metabolite	100
JWH 081 N-(5-hydroxypentyl) metabolite	3000
JWH 122 N-(5-hydroxypentyl) metabolite	150
JWH 200 5-hydroxyindole metabolite	150
JWH 203 N-(5-hydroxypentyl) metabolite	10000
JWH 210 N-(5-hydroxypentyl) metabolite	1500
JWH 250 N-(5-hydroxypentyl) metabolite	>100,000
JWH 398 N-(5-hydroxypentyl) metabolite	150
AM2201 N-(4-hydroxypentyl) metabolite	100
AM694 N-(5-hydroxypentyl) metabolite	250
PB-22 N-(5-hydroxypentyl) metabolite	>100,000
AKB48 N-(5-hydroxypentyl) metabolite	>100,000
K2-25 (K2)	
JWH-018 N-(5-hydroxypentyl) metabolite	25
JWH-073 N-(4-hydroxybutyl) metabolite	25
JWH-018 pentanoic acid	25
JWH-073 butanoic acid	25
JWH-018	10,000
JWH-073	10,000
JWH 019 N-(5-hydroxyhexyl) metabolite	50
JWH 081 N-(5-hydroxypentyl) metabolite	1500
JWH 122 N-(5-hydroxypentyl) metabolite	75
JWH 200 5-hydroxyindole metabolite	75
JWH 203 N-(5-hydroxypentyl) metabolite	5000
JWH 210 N-(5-hydroxypentyl) metabolite	750
JWH 250 N-(5-hydroxypentyl) metabolite	>100,000
JWH 398 N-(5-hydroxypentyl) metabolite	75
AM2201 N-(4-hydroxypentyl) metabolite	50
AM694 N-(5-hydroxypentyl) metabolite	125
PB-22 N-(5-hydroxypentyl) metabolite	>100,000
AKB48 N-(5-hydroxypentyl) metabolite	>100,000
K2-20 (K2)	
JWH-018 N-(5-hydroxypentyl) metabolite	20
JWH-073 N-(4-hydroxybutyl) metabolite	20
JWH-018 pentanoic acid	20
JWH-073 butanoic acid	20
JWH-018	6,000
JWH-073	6,000
JWH 019 N-(5-hydroxyhexyl) metabolite	40
JWH 081 N-(5-hydroxypentyl) metabolite	1200
JWH 122 N-(5-hydroxypentyl) metabolite	60
JWH 200 5-hydroxyindole metabolite	60
JWH 203 N-(5-hydroxypentyl) metabolite	4000
JWH 210 N-(5-hydroxypentyl) metabolite	600
JWH 250 N-(5-hydroxypentyl) metabolite	>100,000
JWH 398 N-(5-hydroxypentyl) metabolite	60
AM2201 N-(4-hydroxypentyl) metabolite	40
AM694 N-(5-hydroxypentyl) metabolite	100
PB-22 N-(5-hydroxypentyl) metabolite	>100,000
AB-PINACA (K3)	
AB-PINACA	300

JWH 073 N-(5-hydroxypentyl) metabolite	>100000
JWH 081 N-(5-hydroxypentyl) metabolite	>100000
JWH 200 5-hydroxyindole metabolite	>100000
JWH 203 N-(5-hydroxypentyl) metabolite	>100000
JWH 398 N-(5-hydroxypentyl) metabolite	>100000
AM 694 N-(5-hydroxypentyl) metabolite	>100000
AKB 48 N-(5-hydroxypentyl) metabolite	>100000
AB-FUBINACA	500
AB-PINACA 5-Pentanoic acid metabolite	50
AB-PINACA 4-Hydroxypentyl metabolite	100
AB-PINACA 5-Hydroxypentyl metabolite	50
AB-PINACA 25 (K3)	
AB-PINACA	25
JWH 073 N-(5-hydroxypentyl) metabolite	>100000
JWH 081 N-(5-hydroxypentyl) metabolite	>100000
JWH 200 5-hydroxyindole metabolite	>100000
JWH 203 N-(5-hydroxypentyl) metabolite	>100000
JWH 398 N-(5-hydroxypentyl) metabolite	>100000
AM 694 N-(5-hydroxypentyl) metabolite	>100000
AKB 48 N-(5-hydroxypentyl) metabolite	>100000
AB-FUBINACA	500
AB-PINACA 5-Pentanoic acid metabolite	25
AB-PINACA 4-Hydroxypentyl metabolite	25
AB-PINACA 5-Hydroxypentyl metabolite	25
MDMB-CHMINACA	>50000
UR-144 (K4)	
UR-144 5-Pentanoic acid metabolite/K4	10
UR-144	>500000
UR-144 5-Hydroxypentyl metabolite	>500000
XLR-11	>500000
XLR-11 4-Hydroxypentyl metabolite	>500000
KETAMINE 1000(KET)	
Ketamine	1000
methamphetamine	25,000
KETAMINE 500 (KET)	
Ketamine	500
methamphetamine	25,000
KETAMINE 300 (KET)	
Ketamine	300
methamphetamine	7500
KETAMINE 100 (KET)	
Ketamine	100
methamphetamine	25,00
Kratom 500 (KRA)	
Mitragynine	500
7-hydroxymitragynine	8000
Kratom 300 (KRA)	
Mitragynine	300
7-hydroxymitragynine	8000
Kratom 250 (KRA)	
Mitragynine	250
7-hydroxymitragynine	8000
Kratom 100 (KRA)	
Mitragynine	100
7-hydroxymitragynine	8000
Kratom 25 (KRA)	
Mitragynine	25
7-hydroxymitragynine	8000
Lysergic Acid Diethylamide 10 (LSD)	
LSD	10
Fentanyl	15
Lysergic Acid Diethylamide 3 (LSD)	
LSD	3
Fentanyl	3.75
Methcathinone 1000 (MCAT)	
S(-)-Methcathinone Hcl	1000
(±)-3-Fluoromethcathinone	>100000
S(+)-Methamphetamine	25000
R(+)-Methcathinone Hcl	20000
METHADONE 500 (MTD)	
Methadone	500
Doxylamine	100000
METHADONE 300 (MTD)	
Methadone	300
Doxylamine	100000
METHADONE 200 (MTD)	
Doxylamine	70000
METHADONE150 (MTD)	
Doxylamine	70000
METHADONE 50 (MTD)	
Doxylamine	50000
METHAMPHETAMINE 1000 (mAMP/MET)	
S(+) Methamphetamine	1000

(±)-MDEA	2500
(±)- MDMA	5000
(±)-MDA	100000
S(+)-Amphetamine	100000
R(-)-Amphetamine	>100000
Ephedrine	100000
METHAMPHETAMINE 500 (mAMP/MET)	
S(+)-Methamphetamine	500
(±)-MDMA	2500
R(-)-Amphetamine	>100000
S(+)-Amphetamine	100000
(±)-MDA	100000
(±)-MDEA	2500
Ephedrine	100000
METHAMPHETAMINE 300 (mAMP/MET)	
S(+)-Methamphetamine	300
(±)3,4-Methylenedioxyethylamphetamine(MDEA)	2000
(+/-)3,4-Methylenedioxymethamphetamine (MDMA)	2500
(±)3,4-Methylenedioxyamphetamine (MDA)	>100000
R(-)-Methamphetamine	2500
METHAMPHETAMINE 100 (mAMP/MET)	
S(+)-Methamphetamine	100
(±)3,4-Methylenedioxyethylamphetamine(MDEA)	1000
(+/-)3,4-Methylenedioxymethamphetamine (MDMA)	500
(±)3,4-Methylenedioxyamphetamine (MDA)	100000
R(-)-Methamphetamine	500
METHYLENEDIOXYMETHAMPHETAMINE 500 (MDMA)	
(±)- MDMA	500
S(+)-Amphetamine	100000
R(-)-Methamphetamine	25000
(±)-MDEA	50
(±)-MDA	1000
METHYLENEDIOXYMETHAMPHETAMINE 300 (MDMA)	
(+/-)3,4-Methylenedioxymethamphetamine (MDMA)	300
S(+)-Amphetamine	>100000
R(-)-Methamphetamine	>100000
(±)3,4-Methylenedioxyethylamphetamine (MDEA)	5000
(±)3,4-Methylenedioxyamphetamine (MDA)	10000
METHYLENEDIOXYMETHAMPHETAMINE 100 (MDMA)	
(+/-)3,4-Methylenedioxymethamphetamine (MDMA)	100
S(+)-Amphetamine	100000
R(-)-Methamphetamine	12.5
(±)-MDEA	25
(±)-MDA	500
Methylenedioxypyrovalerone 500 (MDPV)	
Methylenedioxypyrovalerone	500
alpha-PVP	75,000
Mephedrone	75,000
Meprobamate	> 100,000
D-Amphetamine	100000
+Methamphetamine	100000
(+/-)3,4-Methylenedioxymethamphetamine (MDMA)	10000
Methylenedioxypyrovalerone 300 (MDPV)	
Methylenedioxypyrovalerone	300
alpha-PVP	75,000
Mephedrone	75,000
Meprobamate	> 100,000
D-Amphetamine	100000
+Methamphetamine	100000
(+/-)3,4-Methylenedioxymethamphetamine (MDMA)	10000
Mephedrone 500 (MEP)	
Mephedrone	500
Methaqualone (MQL)	
Methaqualone	300
Phenytoin	40000
Primidone	20000
Theophylline	40000
Methylphenidate (MTHP)	
Methylphenidate	300
OPIATE/MORPHINE (MOP/OPI)	
Morphine	300
Codeine	75
Hydrocodone	10000
Hydromorphone	3500
Morphine-3beta-D-glucuronide	300
6-Monoacetylmorphine	25
Oxycodone	>100000
Oxymorphone	>100000
Thebaine	80000
OPIATE 2000 (OPI 2000)	
Morphine	2000
Codeine	2500
Hydrocodone	10000

Hydromorphone	7000
Morphine-3beta-D-glucuronide	3000
6-Monoacetylmorphine	300
Oxycodone	>100000
Oxymorphone	50000
Thebaine	80000
OPIATE 200 (OPI)	
Morphine	200
Codeine	200
Hydrocodone	500
Hydromorphone	500
Morphine 3beta-D-glucuronide	25
Oxycodone	>100000
Oxymorphone	>100000
Thebaine	>100000
OPIATE 100 (OPI)	
Morphine	100
Codeine	75
Hydrocodone	250
Hydromorphone	250
Morphine 3beta-D-glucuronide	12.5
Oxycodone	>100000
Oxymorphone	>100000
Thebaine	50000
OPIATE 50 (OPI)	
Morphine	50
Codeine	75
Hydrocodone	125
Hydromorphone	125
Morphine 3beta-D-glucuronide	5
Oxycodone	100000
OXYCODONE 300 (OXY)	
Oxycodone	300
Morphine	>100000
Codeine	2000
Hydrocodone	>100000
Hydromorphone	>100000
Oxymorphone	12.5
OXYCODONE 100 (OXY)	
Oxycodone	100
Morphine	100000
Codeine	2500
Morphine-3beta-D-glucuronide	>100000
Hydrocodone	1600
Hydromorphone	15000
Oxymorphone	1500
PHENCYCLIDINE (PCP)	
Phencyclidine	25
PROPOXYPHENE 300 (PPX)	
Propoxyphene	300
(+)-Norpropoxyphene maleate	3750
Methadone	>100000
PROPOXYPHENE 100 (PPX)	
Propoxyphene	100
(+)-Norpropoxyphene	2500
Methadone	>100000
Pregabalin (PGB)	
Pregabalin	500
Gabapentin	> 100,000
Vigabatrin	> 100,000
MARIJUANA 600 (THC)	
11-nor-Δ8-THC-9-COOH	600
(-)-delta8-THC	>100000
(-)-delta9THC	>100000
Cannabinol	>100000
Cannabidiol	>100000
MARIJUANA 300 (THC)	
11-nor-Δ8-THC-9-COOH	300
(-)-delta8-THC	>100000
(-)-delta9-THC	>100000
Cannabinol	>100000
Cannabidiol	>100000
MARIJUANA 200 (THC)	
11-nor-Δ8-THC-9-COOH	200
(-)-delta8-THC	>100000
(-)-delta9-THC	>100000
Cannabinol	>100000
Cannabidiol	>100000
MARIJUANA 100 (THC)	
11-nor-Δ8-THC-9-COOH	100
(-)-delta8-THC	>100000
(-)-delta9-THC	>100000
Cannabinol	>100000

Cannabidiol	>100000
MARIJUANA 50 (THC)	
11-nor-Δ8-THC-9-COOH	50
(-)-delta8-THC	>100000
(-)-delta9THC	>100000
Cannabinol	>100000
Cannabidiol	>100000
MARIJUANA 40 (THC)	
11-nor-Δ8-THC-9-COOH	40
(-)-delta8-THC	>100000
(-)-delta9-THC	>100000
Cannabinol	>100000
Cannabidiol	>100000
MARIJUANA 25 (THC)	
11-nor-Δ8-THC-9-COOH	25
(-)-delta8-THC	>100000
(-)-delta9-THC	>100000
Cannabinol	>100000
Cannabidiol	>100000
MARIJUANA 20 (THC)	
11-nor-Δ8-THC-9-COOH	20
(-)-delta8-THC	100000
(-)-delta9-THC	100000
Cannabinol	>100000
Cannabidiol	>100000
MARIJUANA 15 (THC)	
11-nor-Δ8-THC-9-COOH	15
(-)-delta8-THC	10000
(-)-delta9-THC	10000
Cannabinol	50000
Cannabidiol	＞100000
MARIJUANA 10 (THC)	
11-nor-Δ8-THC-9-COOH	10
(-)-delta8-THC	100000
(-)-delta9-THC	100000
Cannabinol	>100000
Cannabidiol	>100000
MARIJUANA 5 (THC)	
11-nor-Δ8-THC-9-COOH	5
(-)-delta8-THC	4500
(-)-delta9-THC	5000
Cannabinol	15000
Cannabidiol	>100000
TRAMADOL 300 (TRA)	
Tramadol	300
(+/-) Chlorpheniramine	>100,000
Diphenhydramine	>100,000
Pheniramine	>100,000
Tramadol 200 (TRA)	
Tramadol	200
(+/-) Chlorpheniramine	>100,000
Diphenhydramine	>100,000
Pheniramine	>100,000
Tramadol 100 (TRA)	
Tramadol	100
(+/-) Chlorpheniramine	>100,000
Diphenhydramine	>100,000
TRICYCLIC ANTIDEPRESSANTS 1000 (TCA)	
Notriptiline	1000
Trimipramine	10000
Amitriptyline Hydrochloride	500
Promazine Hydrochloride	>100000
Desipramine Hcl	2000
Imipramine Hydrochloride	2000
Maprotiline Hydrochloride	>100000
TRICYCLIC ANTIDEPRESSANTS 100 (TCA)	
Notriptiline	100
Trimipramine	4500
Amitriptyline	1000
Promazine	3000
Desipramine	1000
Imipramine	1000
Clomipramine	7500
Doxepin	3000
Maprotiline	50000
Zolpidem (ZOLP)	
Zolpidem	10
Zolpidem Phenyl-4-carboxylic acid	10
D-Amphetamine	100000
+Methamphetamine	100000
(+/-)3,4-Methylenedioxymethamphetamine (MDMA)	10000
Zopiclone (ZOP)	
Zopiclone	50
Zopiclone-N-oxide	25
Zopiclone-N-oxide-D4	25
N-Desmthylzopiclone	25
N-Desmthylzopiclone-D4	25
6-Monoacetylmorphine (6-MAM)	
6-MAM	10
Heroin	150
Morphine	>100,000
Codeine	>100,000
Oxycodone	>100,000
Hydrocodone	>100,000
Hydromorphone	>100,000
CARISOPRODOL(SOMA)	
Carisoprodol	1000
Xylazine 1000 (XYL)	
Xylazine	1000
4-Hydroxy Xylazine	20000

Alcohol Test

The Alcohol test will react with methyl, ethyl, and allyl alcohols, but it will not react with alcohols having 5 or more carbons, glycine, glycerol, and serine. This property is a result of specificity of the alcohol oxidase enzyme extracted from yeast.

Interfering Compounds:

The following compounds in both drug-free urine and drug positive urines with Amphetamine, Acetaminophen, Barbiturates, Benzodiazepines, Buprenorphine, Caffeine, Carfentanyl, Klonopin, Cocaine, Cotinine, EDDP, Ethyl Glucuronide, Fentanyl, Gabapentin, Hydrocodone, K2, AB-PINACA, UR-144 5-Pentanoic acid Metabolite, Ketamine, Kratom, Lysergic Acid Diethylamide, Methcathinone, Methadone, Methamphetamine, Methylenedioxymethamphetamine, Methylenedioxypyrovalerone, Mephedrone, Methaqualone, Methylphenidate, Morphine, Opiates, Oxycodone, Phencyclidine, Propoxyphene, Pregabalin, Marijuana, Tramadol, Tricyclic Antidepressants, Zolpidem, Zopiclone, 6-Monoacetylmorphine, Carisoprodol**,** Xylazine , Alcohol show no cross-reactivity when tested with **Drug Tests (Strip/Card/Device/Cup)** at a concentration of 100 µg/mL.

Common Substances:

Acetaminophen	Dextromethorphan	Lidocaine
Acetone	Dopamine	(+)-Naproxen
Albumin	(+/-)-Epinephrine	Niacinamide
Ampicillin	Erythromycin	Nicotine
Ascorbic Acid	Ethanol	Oxalic Acid
Aspartame	Furosemide	Penicillin-G
Aspirin	Glucose	Phenothiazine
Atropine	Guaiacol Glyceryl Ether	Quinidine
Benzocaine	Hemoglobin	Riboflavin
Bilirubin	Ibuprofen	Sodium Chloride
Caffeine	(+/-)-Isoproterenol	Sulindac
(+/-)-Chlorpheniramine	Ketamine	Theophylline
Creatine	Levorphanol	4-Dimethylaminoantipyrine

Biological Materials:

Albumin	Vitamin(L-Ascorbic Acid)
Bilirubin	Uric Acid
Creatine	Urine pH 4.5-9.0
Hemoglobin	Urine Specific Gravity 1.002-1.035 g/mL
Glucose	

(There is a possibility that other substances and/or factors not listed above may interfere with the test and cause false results.)

Alcohol Test

The following substances may interfere with the Alcohol (ALC) Test:

Strong oxidizers	Ascorbic acid
Tannic acid	Polyphenolic compopunds
Mercaptans	Uric acid
Bilirubin	Oxalic acid

These compounds are not normally present in sufficient amount in urine to interfere with the test.

Bibliography:

1. Baselt, R.C. Disposition of Toxic Drugs and Chemicals in Man, 4thEd., Biomedical Publ., Davis, CA., 1995.
2. Department of Health and Human Service, Mandatory Guidelines for Federal Workplace Drug Testing Program, Fed Register. 53(69): 11970-11979, 1988.
3. Gilman, A. G., and Goodman, L.S., The pharmacological basis of therapeutics, Ed. MacMillan Publishing, New York, NY, 1980.
4. Urine Testing for Drugs of Abuse. National Institute on Drug Abuse (NIDA): Research Monograph, 73, 1986.
5. Wilson, John, Abused Drugs II, a laboratory Pocket Guide. AACC Press. Washington, DC; 1994.
6. Cody, J.T., "Specimen Adulteration in drug urinalysis. Forsenic Sci. Rev., 1990, 2:63.
7. Tsai, S.C. et.al., J. Anal. Toxicol. 1998; 22 (6): 474.
8. Tietz NW. Textbook of Clinical Chemistry.W.B.Saunders Company.1986;1735.

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GLOSSARY OF SYMBOLS

CE Approved

REF	Catalog number		Temperature limitation
	Consult instructions for use	LOT	Batch code
IVD	*In vitro* diagnostic medical device		Use by
	Manufacturer		Do not reuse

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