Multi-Drug Surface Test Panel
Package Insert

Instruction Sheet for testing of any combination of the following drugs: ACE/AMP/BAR/BZO/BUP/COC/THC/MTD/MET/MDMA/MOP/OPI/MQL/PCP/PPX/TCA/TML/KET/OXY/COT/FYL/MPD/ZOL/LSD/K2/α-PVP/MCAT/MDPV/ABP(K3)/CFYL/DIA/MDA/EDDP

【INTENDED USE】

The Multi-Drug Surface Test Panel is a rapid chromatographic immunoassay for the qualitative detection of multiple drugs at the following cut-off concentrations:

Test	Calibrator	Cut-off (ng/mL)
Acetaminophen (ACE)	Acetaminophen	5,000
Amphetamine (AMP)	d-Amphetamine	1,000/500/300/100
Barbiturates (BAR)	Secobarbital	300
Benzodiazepines (BZO)	Oxazepam	300/200
Buprenorphine (BUP)	Buprenorphine	10/5
Cocaine (COC)	Benzoylecgonine	300/150
Marijuana (THC)	11-nor-Δ^9-THC-9 COOH	50/25
Methadone (MTD)	Methadone	300
Methamphetamine (MET)	d-Methamphetamine	1,000/500/300
Methylenedioxymethamphetamine (MDMA)	d,l-Methylenedioxymethamphetamine	500
Morphine (MOP/OPI)	Morphine	300
Opiate (OPI)	Morphine	2,000
Methaqualone (MQL)	Methaqualone	300
Phencyclidine (PCP)	Phencyclidine	25
Propoxyphene (PPX)	Propoxyphene	300
Tricyclic Antidepressants (TCA)	Nortriptyline	1,000
Tramadol (TML)	Cis-Tramadol	100/200
Ketamine (KET)	Ketamine	1,000/100
Oxycodone (OXY)	Oxycodone	100
Cotinine (COT)	Cotinine	200
Fentanyl (FYL)	Fentanyl	200/20
Methylphenidate (MPD)	Methylphenidate	1,000/300
Zolpidem (ZOL)	Zolpidem	50
Synthetic Marijuana (K2)	JWH-018、JWH-073	50/30
AB-PINACA (ABP/K3)	AB-PINACA	10
3, 4-Methylenedioxypyrovalerone (MDPV)	3, 4-methylenedioxypyrovalerone	1,000/500
Methcathinone (MCAT)	S(-)-Methcathinone	500
Lysergic Acid Diethylamide (LSD)	Lysergic Acid Diethylamide	20/10
alpha-Pyrrolidinovalerophenone (α-PVP)	alpha-Pyrrolidinovalerophenone	1,000
Carfentanyl (CFYL)	Carfentanyl	500
Diazepam (DIA)	Diazepam	300
3,4-Methylenedioxyamphetamine (MDA)	(±) 3,4-MethylenedioxyAmphetamine	500
2-ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine (EDDP)	2-ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine	100

With this surface test, you can test:

1. Minimal traces of drugs adhering to surfaces such as furniture, utilitarian objects etc. as residues.
2. Solid substances such as tablets and powder.
3. Urine samples, which can be used to detect drug use.
4. Liquids from ampoules or other containers that may contain suspicious substances.

Configurations of the Multi-Drug Surface Test Panel come with any combination of the above listed drug analytes. This assay provides only a preliminary analytical test result. A more specific alternate chemical method must be used in order to obtain a confirmed analytical result. Gas chromatography/mass spectrometry (GC/MS) is the preferred confirmatory method.

【SUMMARY】

The Multi-Drug Surface Test Panel is a rapid surfaces or solids screening test that can be performed without the use of an instrument. The test utilizes monoclonal antibodies to selectively detect elevated levels of specific drugs on surfaces and in solids.

Acetaminophen (ACE)

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., non steroidalant inflammatory 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).

Amphetamine (AMP)

Amphetamine is a Schedule II controlled substance available by prescription (Dexedrine®) and is also available on the illicit market. Amphetamines are a class of potent sympathomimetic agents with therapeutic applications. They are chemically related to the human body's natural catecholamines: epinephrine and norepinephrine. Acute higher doses lead to enhanced stimulation of the central nervous system (CNS) and induce euphoria, alertness, reduced appetite, and a sense of increased energy and power. Cardiovascular responses to amphetamines include increased blood pressure and cardiac arrhythmias. More acute responses produce anxiety, paranoia, hallucinations, and psychotic behavior.

Barbiturates (BAR)

Barbiturates are CNS depressants. They are used therapeutically as sedatives, hypnotics, and anticonvulsants barbiturates are almost always taken orally as capsules or tablets. The effects resemble those of intoxication with alcohol. Chronic use of barbiturates leads to tolerance and physical dependence.

Short-acting barbiturates taken at 400 mg/day for 2-3 months can produce a clinically significant degree of physical dependence. Withdrawal symptoms experienced during periods of drug abstinence can be severe enough to cause death.

Benzodiazepines (BZO)

Benzodiazepines are medications that are frequently prescribed for the symptomatic treatment of anxiety and sleep disorders. They produce their effects via specific receptors involving a neurochemical called gamma aminobutyric acid (GABA). Because they are safer and more effective, benzodiazepines have replaced barbiturates in the treatment of both anxiety and insomnia. Benzodiazepines are also used as sedatives before some surgical and medical procedures, and for the treatment of seizure disorders and alcohol withdrawal.

Risk of physical dependence increases if benzodiazepines are taken regularly (e.g., daily) for more than a few months, especially at higher than normal doses. Stopping abruptly can bring on such symptoms as trouble sleeping, gastrointestinal upset, feeling unwell, loss of appetite, sweating, trembling, weakness, anxiety and changes in perception.

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.

Cocaine (COC)

Cocaine is a potent central nervous system stimulant and a local anesthetic. Initially, it brings about extreme energy and restlessness while gradually resulting in tremors, over-sensitivity and spasms. In large amounts, cocaine causes fever, unresponsiveness, difficulty in breathing and unconsciousness. Cocaine is often self-administered by nasal inhalation, intravenous injection and free-base smoking.

Marijuana (THC)

THC (Δ^9-tetrahydrocannabinol) is the primary active ingredient in cannabis (marijuana). When smoked or orally administered, THC produces euphoric effects. Users have impaired short-term memory and slowed learning. They may also experience transient episodes of confusion and anxiety. Long-term, relatively heavy use may be associated with behavioral disorders. The peak effect of marijuana administered by smoking occurs in 20-30 minutes and the duration is 90-120 minutes after one cigarette.

Methadone (MTD)

Methadone is a narcotic analgesic prescribed for the management of moderate to severe pain and for the treatment of opiate dependence (heroin, Vicodin, Percocet, morphine). The pharmacology of oral methadone is very different from IV methadone. Oral methadone is partially stored in the liver for later use. IV methadone acts more like heroin. In most states you must go to a pain clinic or a methadone maintenance clinic to be prescribed methadone.

Methadone is a long acting pain reliever producing effects that last from twelve to forty-eight hours. Ideally, methadone frees the client from the pressures of obtaining illegal heroin, from the dangers of injection, and from the emotional roller coaster that most opiates produce. Methadone, if taken for long periods and at large doses, can lead to a very long withdrawal period. The withdrawals from methadone are more prolonged and troublesome than those provoked by heroin cessation, yet the substitution and phased removal of methadone is an acceptable method of detoxification for patients and therapists.[3]

Methamphetamine (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 is made in illegal laboratories and has a high potential for abuse and dependence. The drug can be taken orally, injected, or inhaled. Acute higher doses lead to enhanced stimulation of the central nervous system and induce euphoria, alertness, reduced appetite, and a sense of increased energy and power. Cardiovascular responses to Methamphetamine include increased blood pressure and cardiac arrhythmias. More acute responses produce anxiety, paranoia, hallucinations, psychotic behavior, and eventually, depression and exhaustion.

Methylenedioxymethamphetamine (MDMA)

Methylenedioxymethamphetamine (ecstasy) is a designer drug first synthesized in 1914 by a German drug company for the treatment of obesity.[2] Those who take the drug frequently report adverse effects, such as increased muscle tension and sweating. MDMA is not clearly a stimulant, although it has, in common with amphetamine drugs, a capacity to increase blood pressure and heart rate. MDMA does produce some perceptual changes in the form of increased sensitivity to light, difficulty in focusing, and blurred vision in some users. Its mechanism of action is thought to be via release of the neurotransmitter serotonin. MDMA may also release dopamine, although the general opinion is that this is a secondary effect of the drug (Nichols and Oberlender, 1990). The most pervasive effect of MDMA, occurring in virtually all people who took a reasonable dose of the drug, was to produce a clenching of the jaws.

Morphine/Opiate (MOP/OPI)

Mop refers 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. Opioid is more general, referring to any drug that acts on the opioid receptor.

Opioid analgesics comprise a large group of substances which control pain by depressing the CNS. Large doses of morphine can produce higher tolerance levels, physiological dependency in users, and may lead to substance abuse. Morphine is excreted unmetabolized, and is also the major metabolic product of codeine and heroin.

Methaqualone (MQL)

Methaqualone (Quaalude, Sopor) is a quinazoline derivative that was first synthesized in 1951 and found clinically effective as a sedative and hypnotic in 1956.[4]It soon gained popularity as a drug of abuse and in 1984 was removed from the US market due to extensive misuse. It is occasionally encountered in illicit form, and is also available in

European countries in combination with diphenhydramine (Mandrax). Methaqualone is extensively metabolized *in vivo* principally by hydroxylation at every possible position on the molecule.

Phencyclidine (PCP)

Phencyclidine, also known as PCP or Angel Dust, is a hallucinogen that was first marketed as a surgical anesthetic in the 1950's. It was removed from the market because patients receiving it became delirious and experienced hallucinations.

PCP is used in powder, capsule, and tablet form. The powder is either snorted or smoked after mixing it with marijuana or vegetable matter. PCP is most commonly administered by inhalation but can be used intravenously, intra-nasally, and orally. After low doses, the user thinks and acts swiftly and experiences mood swings from euphoria to depression. Self-injurious behavior is one of the devastating effects of PCP.

Propoxyphene (PPX)

Propoxyphene (PPX) is a narcotic analgesic compound bearing structural similarity to methadone. As an analgesic, propoxyphene can be from 50-75% as potent as oral codeine. Darvocet™, one of the most common brand names for the drug, contains 50-100 mg of propoxyphene napsylate and 325-650 mg of acetaminophen. Peak plasma concentrations of propoxyphene are achieved from 1 to 2 hours post dose. In the case of overdose, propoxyphene blood concentrations can reach significantly higher levels.

In humans, propoxyphene is metabolized by N-demethylation to yield norpropoxyphene. Norpropoxyphene has a longer half-life (30 to 36 hours) than parent propoxyphene (6 to 12 hours).The accumulation of norpropoxyphene seen with repeated doses may be largely responsible for resultant toxicity.

Tricyclic Antidepressants (TCA)

TCA (Tricyclic Antidepressants) are commonly used for the treatment of depressive disorders. TCA overdoses can result in profound CNS depression, cardiotoxicity and anticholinergic effects. TCA overdose is the most common cause of death from prescription drugs. TCAs are taken orally or sometimes by injection. TCAs are metabolized in the liver.

Tramadol (TML)

Tramadol (TML) is a quasi-narcotic analgesic used in the treatment of moderate to severe pain. It is a synthetic analog of codeine, but has a low binding affinity to the mu-opioid receptors. Large doses of tramadol can develop tolerance and physiological dependency and lead to its abuse. Tramadol is extensively metabolized after oral administration.

Ketamine (KET)

Ketamine is a dissociative anesthetic developed in 1963 to replace PCP (Phencyclidine). While Ketamine is still used in human anesthesia and veterinary medicine, it is becoming increasingly abused as a street drug. Ketamine is molecularly similar to PCP and thus creates similar effects including numbness, loss of coordination, sense of invulnerability, muscle rigidity, aggressive / violent behavior, slurred or blocked speech, exaggerated sense of strength, and a blank stare. There is depression of respiratory function but not of the central nervous system, and cardiovascular function is maintained.

Oxycodone (OXY)

Oxycodone is a semi-synthetic opioid with a structural similarity to codeine. The drug is manufactured by modifying thebaine, an alkaloid found in the opium poppy. Oxycodone, like all opiate agonists, provides pain relief by acting on opioid receptors in the spinal cord, brain, and possibly directly in the affected tissues. Oxycodone is prescribed for the relief of moderate to high pain under the well-known pharmaceutical trade names of OxyContin®, Tylox®, Percodan® and Percocet®. While Tylox®, Percodan® and Percocet® contain only small doses of oxycodone hydrochloride combined with other analgesics such as acetaminophen or aspirin, OxyContin consists solely of oxycodone hydrochloride in a time-release form.

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.

Fentanyl (FYL)

Fentanyl, belongs to powerful narcotics analgesics, and is a μ special opiates receptor stimulant. Fentanyl is one of the varieties that been listed in management of United Nations "Single Convention of narcotic drug in 1961". Among the opiates agents that under international control, fentanyl is one of the most commonly used to cure moderate to severe pain.[1] After continuous injection of fentanyl, the sufferer will have the performance of protracted opioid abstinence syndrome, such as ataxia and irritability etc, which presents the addiction after taking fentanyl in a long time. Compared with drug addicts of amphetamine, drug addicts who take fentanyl mainly have got the possibility of higher infection rate of HIV, more dangerous injection behavior and more lifelong medication overdose.

Synthetic Marijuana (K2)

Synthetic Marijuana or K2 a psychoactive herbal and chemical product that, when consumed, mimics the effects of Marijuana. 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 Marijuana product. The studies suggest that synthetic marijuana 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.

Asof 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 (ABP/K3)

AB-PINACA is a compound that was first identified as a component of synthetic cannabis products in Japan in 2012. It was originally developed by Pfizer in 2009 as an analgesic medication. AB-PINACA acts as a potent agonist for the CB1 receptor (Ki = 2.87 nM, EC50 = 1.2 nM) and CB2 receptor (Ki = 0.88 nM, EC50 = 2.5 nM) and fully substitutes for Δ^9-THC in rat discrimination studies, while being 1.5x more potent.

The ABP(K3) Surface Test is a rapid screening test that can be performed without the use of an instrument. The test utilizes a monoclonal antibody to selectively detect elevated levels of AB-PINACA in urine.

3, 4-methylenedioxypyrovalerone (MDPV)

3, 4-methylenedioxypyrovalerone (MDPV) is a psychoactive recreational drug with stimulant properties which acts as a norepinephrine-dopamine reuptake inhibitor (NDRI). It was first developed in the 1960s by a team at Boehringer Ingelheim. 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 the 3,4-methylenedioxy ring-substituted analog of the compound pyrovalerone, developed in the 1960s, which has been used for the treatment of chronic fatigue and as an anorectic, but caused problems of abuse and dependence. However, despite its structural similarity, the effects of MDPV bear little resemblance to other methylenedioxy phenylalkylamine derivatives such as 3,4-methylenedioxy-N-methylamphetamine (MDMA), instead producing primarily stimulant effects with only mild entactogenic qualities.

MDPV undergoes CYP450 2D6, 2C19, 1A2, and COMT phase 1 metabolism (liver) into methylcatechol and pyrrolidine, which in turn are glucuronated (uridine 5'-diphospho-glucuronosyl-transferase) allowing it to be excreted by the kidneys, with only a small fraction of the metabolites being excreted into the stools. No free pyrrolidine will be detected in the urine.

Methcathinone (MCAT)

Methcathinone, is a monoamine alkaloid and psychoactive stimulant, a substituted cathinone. Methcathinone is a highly addictive drug, primarily psychologically addicting and most of the signs of addiction to the drug are emotional or psychological. It has been popularized and continues to be sold under misleading names such as "bath salts", "plant fertilizers" or "research chemicals", but it is actually a powerful psycho-stimulant used as a recreational drug. Effects of this drug typically last from 4 to 6 hours. It is used as a recreational drug due to its potent stimulant and euphoric effects and is considered to be addictive, with both physical and psychological withdrawal occurring if its use is discontinued after prolonged or high-dosage administration. It is usually snorted, but can be smoked, injected, or taken orally. Methcathinone is listed as a Schedule I controlled substance by the Convention on Psychotropic Substances and the United States' Controlled Substances Act, and as such it is not considered to be safe or effective in the treatment, diagnosis, prevention, or cure of any disease, and has no approved medical use. Methcathinone has very strong affinities for the dopamine transporter and the norepinephrine (noradrenaline) transporter. Its affinity for the serotonin transporter is less than that of methamphetamine.

Effects of short term intoxication are similar to those produced by crack cocaine or methamphetamine: stimulation of heart rate and respiration; feeling of euphoria; loss of appetite; increased alertness; pupils may be dilated; body temperature may be slightly elevated. Acute intoxication at higher doses may also result in: insomnia, tremors and muscle twitching, fever, headaches, convulsions, irregular heart rate and respirations, anxiety, restlessness, paranoia, hallucinations and delusions.

Methylphenidate (MPD)

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.

Zolpidem (ZOL)

Zolpidem (brand names Ambien, Ambien CR, Intermezzo, Stilnox, Stilnoct, Sublinox, Hypnogen, Zonadin, Sanval and Zolsana) is a prescription medication used for the treatment of insomnia and some brain disorders.[1] It is a short-acting nonbenzodiazepine hypnotic of the imidazopyridine class[5] that potentiates GABA, an inhibitory neurotransmitter, by binding to GABAA receptors at the same location as benzodiazepines.[6] It works quickly, usually within 15 minutes, and has a short half-life of two to three hours.

Zolpidem may be detected in blood or plasma to confirm a diagnosis of poisoning in hospitalized patients, provide evidence in an impaired driving arrest, or to assist in a medico-legal death investigation. Blood or plasma Zolpidem concentrations are usually in a range of 30-300 μg/L in persons receiving the drug therapeutically, 100-700 μg/L in those arrested for impaired driving, and 1000–7000 μg/L in victims of acute over dosage.

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 2Areceptors 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.

Alpha-Pyrrolidinovalerophenone (α-PVP)

Alpha-Pyrrolidinovalerophenone (also known as α-PVP, A-PVP, alpha-PVP, and Flakka) is a synthetic stimulant substance of the cathinone and pyrrolidine chemical classes. α-PVP may be quantified in blood, plasma or urine to confirm a diagnosis of poisoning in hospitalized patients or to provide evidence in a medicolegal death investigation. It generally comes in the form of either a crystalline powder or crystallized shards which users can ingest to produce powerful but short-lived euphoric stimulant effects which are comparable to those of methamphetamine and cocaine when insufflated or vaporized. α-PVP has been reported to be the cause, or a significant contributory cause of death in suicides and overdoses caused by combinations of drugs. It has also been linked to at least one death where it was combined with pentedrone and caused heart failure.

Carfentanyl (CFYL)

Carfentanyl is an analog of the synthetic opioid analgesic fentanyl. It is 10,000 times

more potent than morphine, making it among the most potent commercially used opioids. Carfentanyl was first synthesized in 1974. [7] It is marketed under the trade name Wildnil as a general anaesthetic agent for large animals.[8] Side effects of carfentanyl are similar to those of fentanyl, which include itching, nausea and respiratory depression, which can be life-threatening.[9] Carfentanyl is classified as Schedule II under the Controlled Substances Act in the United States with a DEA ACSCN of 9743. [10]

Diazepam (DIA)

Diazepam is a medication of the benzodiazepine family that typically produces a calming effect. It has anticonvulsant properties. Diazepam has no effect on GABA levels and no effect on glutamate decarboxylase activity, but has a slight effect on gamma-amino butyric acid transaminase activity. Diazepam can be administered orally, intravenously intramuscularly (IM), or as a suppository. When administered orally, it is rapidly absorbed and has a fast onset of action. The onset of action is one to five minutes for IV administration and 15–30 minutes for IM administration. The duration of diazepam's peak pharmacological effects is 15 minutes to one hour for both routes of administration. The bioavailability after oral administration is 100% and 90% after rectal administration. Peak plasma levels occur between 30 and 90 minutes after oral administration and between 30 and 60 minutes after intramuscular administration; after rectal administration, peak plasma levels occur after 10 to 45 minutes. Diazepam is highly protein-bound, with 96 to 99% of the absorbed drug being protein-bound. The distribution half-life of diazepam is 2 to 13 minutes. When diazepam is administered IM, absorption is slow, erratic, and incomplete.

3,4-Methylenedioxyamphetamine (MDA)

3,4-Methylenedioxyamphetamine (MDA), also known as tenamfetamine (INN), or with the street name "Sally" or "Sass" or "Sass-a-frass", is a psychedelic and entactogenic drug of the phenethylamine and amphetamine chemical classes. It is mainly used as a recreational drug, an entheogen, and a tool in use to supplement various types of practices for transcendence, including in meditation, psychonautics, and as an agent in psychedelic psychotherapy. It was first synthesized by G. Mannish and W. Jacobson in 1910. There are about 20 different synthetic routes described in the literature for its preparation.

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

Methadone is an unusual drug in that its primary urinary metabolites (EDDP and EMDP) are cyclic in structure, making them very difficult to detect using immunoassays targeted to the native compound. Exacerbating this problem, there is a subsection of the population classified as “extensive metabolizers” of methadone. In these individuals, a urine specimen may not contain enough parent methadone to yield a positive drug screen even if the individual is in compliance with their methadone maintenance. EDDP represents a better urine marker for methadone maintenance than unmetabolized methadone.

【PRINCIPLE】

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

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

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

【REAGENTS】

Each test line contains anti-drug mouse monoclonal antibody and corresponding drug-protein conjugates. The control line contains goat anti-rabbit IgG polyclonal antibodies and rabbit IgG.

【PRECAUTIONS】

- Use only once.
- Do not touch the free endings of the strips to avoid contamination.
- Do not dip the panel above the maximum deepness level mark.
- Do not spill the samples into the reaction zone.
- Specimens may be potentially infectious. Proper handling and disposal methods should be established.
- Do not use the test panel after expiration date.
- Do not use the test after damage of the packaging foil.
- Use test right after unwrapping.
- Please take the specificity and the cross reactivity into account for evaluation.
- **Strong acid, alkali, oxidation and corrosion liquid is not suitable for this test, thick, oily liquid is not suitable for this test.**

【STORAGE AND STABILITY】

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

【MATERIALS】

Materials Provided

- Test panels
- Package insert

Materials Required but Not Provided

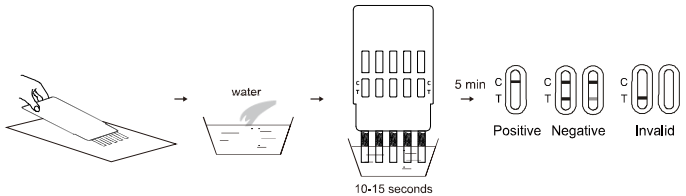
- Specimen collection containers
- Timer

【DIRECTIONS FOR USE】

Allow the test and/or controls to reach room temperature (15-30°C) prior to testing. Remove the test panel from the sealed pouch and use it as soon as possible.

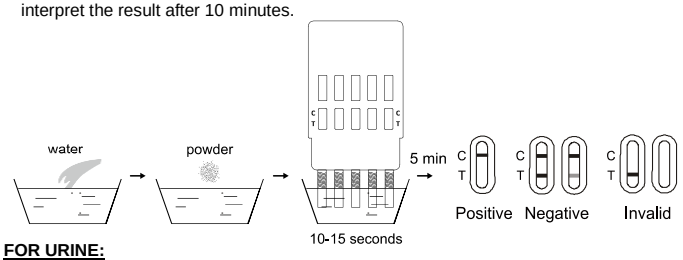
FOR SURFACES:

1. Remove the panel cap and wipe with the panel over the surface in which the drugs are suspected.
2. With the arrow pointing toward the water, **immerse the test panel vertically in the water for at least 10 to 15 seconds.** Immerse the strips to at least the level of the wavy lines, but not above the arrow on the test panel.
3. Wait for the colored line(s) to appear. **The test result should be read at 5 minutes.** Do not interpret the result after 10 minutes.



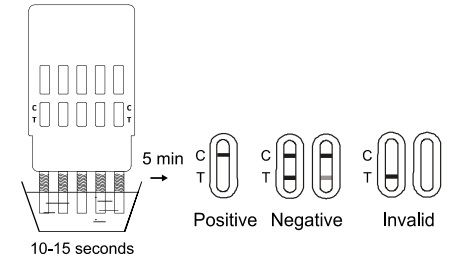
FOR SOLIDS:

1. Prepare specimen collection containers and solid sample.
2. Pour solid sample into the specimen collection containers.
3. At least **1mg solid diluted with 5mL water** (1 mineral water bottle cap≈5mL). Shake to mix well.
4. Remove the panel cap with the arrow pointing toward the water immerse the test panel vertically in the water specimen for at least 10 to 15 seconds. **Immerse the strips to at least the level of the wavy lines, but not above the arrow on the test Panel.**
5. Wait for the colored lines to appear, **read the results after 5 minutes** and do not interpret the result after 10 minutes.



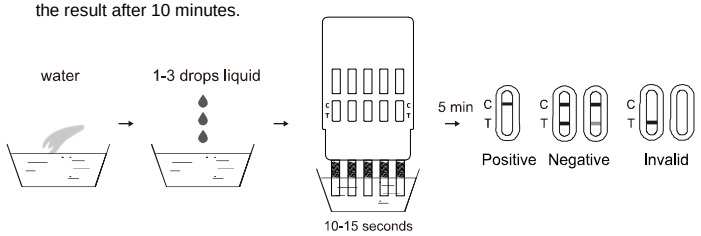
FOR URINE:

1. Collect urine in a clean and dry container.
2. Remove the panel cap, with the arrow pointing toward the specimen, **immerse the test panel vertically in the specimen for at least 10 to 15 seconds.** Immerse the strips to at least the level of the wavy lines, but not above the arrow on the test panel.
3. Wait for the colored lines to appear, **read the results at 5 minutes** and do not interpret the result after 10 minutes.



FOR LIQUIDS:

1. Prepare specimen collection containers and liquid sample.
2. Pour **one to three drops of suspicious liquid into 5mL water** (1 mineral water bottle cap≈5mL). Shake to mix well.
3. Remove the panel cap, with the arrow pointing toward the specimen, i**mmerse the test panel vertically in the specimen for at least 10 to 15 seconds**. Immerse the strips to at least the level of the wavy lines, but not above the arrow on the test panel.
4. Wait for the colored lines to appear, **read the results at 5 minutes** and do not interpret the result after 10 minutes.



【INTERPRETATION OF RESULTS】

(Please refer to the illustration above)

NEGATIVE:* A colored line appears in the control region (C) and other colored lines appear in the test region (T). This negative result means that the concentrations in the sample are below the designated cut-off levels for a particular drug tested.

***NOTE:** The shade of the colored lines(s) in the test region (T) may vary. The result should be considered negative whenever there is even a faint line.

POSITIVE: A colored line appears in the control region (C) and no line appears in the test region (T). The positive result means that the drug concentration in the sample is greater than the designated cut-off for a specific drug.

INVALID: No line appears in the control region (C). Insufficient specimen volume or incorrect procedural techniques are the most likely reasons for control line failure. Read the directions again and repeat the test with a new test. If the result is still invalid, contact your local distributor.

【QUALITY CONTROL】

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

Control standards are not supplied with this kit. However, it is recommended that positive and negative controls be tested as good laboratory practice to confirm the test procedure and to verify proper test performance.

【LIMITATIONS】

1. The Multi-Drug Surface Test Panel provides only a qualitative preliminary result. A secondary analytical method must be used to obtain a confirmed result. Gas chromatography/mass spectrometry (GC/MS) is the preferred confirmatory method.
2. A negative result may not necessarily indicate drug-free sample. Negative results can be obtained when drug is present but below the cut-off level of the test.
3. This test does not distinguish between drugs of abuse and certain medications.

【PERFORMANCE CHARACTERISTICS】

Precision

A study was conducted at three sites using three different lots of product to demonstrate the within run, between run and between operator precision. An identical card of coded specimens, containing drugs at concentrations of ± 50% and ± 25% cut-off level, was labeled, blinded and tested at each site. The results are given below:

ACETAMINOPHEN (ACE 5,000)

Acetaminophen conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
2,500	10	10	0	10	0	10	0
3,750	10	9	1	9	1	8	2
6,250	10	1	9	1	9	1	9
7,500	10	0	10	0	10	0	10

AMPHETAMINE (AMP 1,000)

Amphetamine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
500	10	10	0	10	0	10	0
750	10	9	1	8	2	9	1
1,250	10	1	9	2	8	2	8
1,500	10	0	10	0	10	0	10

AMPHETAMINE (AMP 500)

Amphetamine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
250	10	10	0	10	0	10	0
375	10	9	1	8	2	9	1
625	10	1	9	2	8	2	8
750	10	0	10	0	10	0	10

AMPHETAMINE (AMP 300)

Amphetamine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
150	10	10	0	10	0	10	0
225	10	9	1	8	2	9	1
375	10	1	9	2	8	2	8
450	10	0	10	0	10	0	10

AMPHETAMINE (AMP 100)

Amphetamine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
50	10	10	0	10	0	10	0
75	10	9	1	8	2	9	1
125	10	1	9	2	8	2	8
150	10	0	10	0	10	0	10

BARBITURATES (BAR 300)

Secobarbital conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
150	10	10	0	10	0	10	0
225	10	9	1	8	2	9	1
375	10	2	8	1	9	2	8
450	10	0	10	0	10	0	10

BENZODIAZEPINES (BZO 300)

Oxazepam conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
150	10	10	0	10	0	10	0
225	10	9	1	9	1	9	1
375	10	1	9	1	9	1	9
450	10	0	10	0	10	0	10

BENZODIAZEPINES (BZO 200)

Oxazepam conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
100	10	10	0	10	0	10	0
150	10	8	2	8	2	9	1
250	10	1	9	1	9	2	8
300	10	0	10	0	10	0	10

BUPRENORPHINE (BUP 10)

Buprenorphine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
5	10	10	0	10	0	10	0
7.5	10	9	1	9	1	8	2
12.5	10	1	9	1	9	1	9
15	10	0	10	0	10	0	10

BUPRENORPHINE (BUP 5)

Buprenorphine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
2.5	10	10	0	10	0	10	0
3.75	10	9	1	9	1	9	1
6.25	10	2	8	2	8	1	9
7.5	10	0	10	0	10	0	10

COCAINE (COC 300)

Benzoylecgonine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
150	10	10	0	10	0	10	0
225	10	9	1	9	1	9	1
375	10	1	9	1	9	1	9
450	10	0	10	0	10	0	10

COCAINE (COC 150)

Benzoylecgonine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
75	10	10	0	10	0	10	0
112.5	10	9	1	9	1	9	1
187.5	10	2	8	2	8	2	8
225	10	0	10	0	10	0	10

MARIJUANA (THC 50)

11-nor-Δ^9-COOH conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
25	10	10	0	10	0	10	0
37.5	10	9	1	8	2	9	1
62.5	10	1	9	1	9	2	8
75	10	0	10	0	10	0	10

MARIJUANA (THC 25)

11-nor-Δ^9-COOH conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
12.5	10	10	0	10	0	10	0
18.75	10	9	1	8	2	9	1
31.25	10	2	8	2	8	2	8
37.5	10	0	10	0	10	0	10

METHADONE (MTD 300)

Methadone conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
150	10	10	0	10	0	10	0
225	10	9	1	9	1	9	1
375	10	1	9	1	9	1	9
450	10	0	10	0	10	0	10

METHAMPHETAMINE (MET 1,000)

Methamphetamine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
500	10	10	0	10	0	10	0
750	10	9	1	9	1	9	1
1,250	10	1	9	2	8	1	9
1,500	10	0	10	0	10	0	10

METHAMPHETAMINE (MET 500)

Methamphetamine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
250	10	10	0	10	0	10	0
375	10	9	1	9	1	9	1
625	10	1	9	2	8	1	9
750	10	0	10	0	10	0	10

METHAMPHETAMINE (MET 300)

Methamphetamine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
150	10	10	0	10	0	10	0
225	10	9	1	9	1	9	1
375	10	1	9	2	8	1	9
450	10	0	10	0	10	0	10

METHYLENEDIOXYMETHAMPHETAMINE (MDMA 500) ECSTASY

Methylenedioxymethamphetamine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
250	10	10	0	10	0	10	0
375	10	8	2	9	1	9	1
625	10	1	9	1	9	1	9
750	10	0	10	0	10	0	10

MORPHINE (MOP/OPI 300)

Morphine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
150	10	10	0	10	0	10	0
225	10	9	1	9	1	9	1
375	10	1	9	1	9	1	9
450	10	0	10	0	10	0	10

METHAQUALONE (MQL 300)

Methaqualone conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
150	10	10	0	10	0	10	0
225	10	9	1	9	1	9	1
375	10	1	9	1	9	1	9
450	10	0	10	0	10	0	10

PHENCYCLIDINE (PCP 25)

Phencyclidine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
12.5	10	10	0	10	0	10	0
18.75	10	8	2	9	1	9	1
31.25	10	1	9	1	9	1	9
37.5	10	0	10	0	10	0	10

PROPOXYPHENE (PPX 300)

Propoxyphene conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
150	10	10	0	10	0	10	0
225	10	8	2	9	1	9	1
375	10	1	9	1	9	1	9
450	10	0	10	0	10	0	10

TRICYCLIC ANTIDEPRESSANTS (TCA 1,000)

Nortriptyline conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
500	10	10	0	10	0	10	0
750	10	9	1	8	2	8	2
1,250	10	1	9	1	9	1	9
1,500	10	0	10	0	10	0	10

TRAMADOL (TML 100)

Tramadol conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
50	10	10	0	10	0	10	0
75	10	9	1	9	1	8	2
125	10	1	9	1	9	2	8
150	10	0	10	0	10	0	10

TRAMADOL (TML 200)

Tramadol conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
100	10	10	0	10	0	10	0
150	10	8	2	9	1	8	2
250	10	1	9	1	9	2	8
300	10	0	10	0	10	0	10

KETAMINE (KET 1, 000)

Ketamine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
500	10	10	0	10	0	10	0
750	10	9	1	8	2	9	1
1,250	10	1	9	1	9	2	8
1,500	10	0	10	0	10	0	10

KETAMINE (KET 100)

Ketamine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
50	10	10	0	10	0	10	0
75	10	9	1	8	2	9	1
125	10	1	9	2	8	1	9
150	10	0	10	0	10	0	10

OXYCODONE (OXY 100)

Oxycodone conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
50	10	10	0	10	0	10	0
75	10	9	1	9	1	9	1
125	10	1	9	1	9	1	9
150	10	0	10	0	10	0	10

COTININE (COT 200)

Cotinine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
100	10	10	0	10	0	10	0
150	10	9	1	9	1	9	1
250	10	1	9	1	9	2	8
300	10	0	10	0	10	0	10

FENTANYL (FYL 200)

FYL conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
100	10	10	0	10	0	10	0
150	10	9	1	9	1	9	1
250	10	1	9	1	9	1	9
300	10	0	10	0	10	0	10

FENTANYL (FYL 20)

FYL conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
10	10	10	0	10	0	10	0
15	10	9	1	9	1	9	1
25	10	2	8	1	9	1	9
30	10	0	10	0	10	0	10

OPIATE (OPI 2,000)

Opiate conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
1,000	10	10	0	10	0	10	0
1,500	10	9	1	9	1	9	1
2,500	10	1	9	1	9	1	9
3,000	10	0	10	0	10	0	10

SYNTHETIC MARIJUANA (K2-50)

K2 conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
25	10	10	0	10	0	10	0
37.5	10	8	2	8	2	9	1
62.5	10	2	8	2	8	1	9
75	10	0	10	0	10	0	10

SYNTHETIC MARIJUANA (K2-30)

K2 conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
15	10	10	0	10	0	10	0
22.5	10	8	2	9	1	9	1
37.5	10	1	9	1	9	1	9
45	10	0	10	0	10	0	10

AB-PINACA (ABP/K3 10)

AB-PINACA conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
5	10	10	0	10	0	10	0
7.5	10	8	2	9	1	9	1
12.5	10	1	9	1	9	1	9
15	10	0	10	0	10	0	10

3, 4-METHYLENEDIOXYPYROVALERONE (MDPV 500)

3, 4-methylenedioxypyrovalerone conc (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
250	10	10	0	10	0	10	0
375	10	9	1	9	1	8	2
625	10	2	8	1	9	1	9
750	10	0	10	0	10	0	10

METHCATHINONE (MCAT 500)

Methcathinone conc. (ng/mL)	n per Site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
250	10	10	0	10	0	10	0
375	10	9	1	8	2	9	1
625	10	2	8	2	8	2	8
750	10	0	10	0	10	0	10

METHYLPHENIDATE (MPD 1,000)

Methylphenidate conc. (ng/mL)	n per Site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
500	10	10	0	10	0	10	0
750	10	9	1	8	2	9	1
1250	10	1	9	2	8	1	9
1500	10	0	10	0	10	0	10

ZOLPIDEM (ZOL 50)

Zolpidem conc. (ng/mL)	n per Site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
25	10	10	0	10	0	10	0
37.5	10	9	1	8	2	9	1
62.5	10	1	9	2	8	1	9
75	10	0	10	0	10	0	10

LYSERGIC ACID DIETHYLAMIDE (LSD 20)

Clonazepam conc. (ng/mL)	n per Site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
10	10	10	0	10	0	10	0
15	10	9	1	9	1	8	2
25	10	1	9	1	9	1	9
30	10	0	10	0	10	0	10

LYSERGIC ACID DIETHYLAMIDE (LSD 10)

Clonazepam conc. (ng/mL)	n per Site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
5	10	10	0	10	0	10	0
7.5	10	9	1	9	1	9	1
12.5	10	1	9	1	9	1	9
15	10	0	10	0	10	0	10

ALPHA-PYRROLIDINOVALEROPHENONE (α-PVP 1,000)

Alpha-Pyrrolidinovalerophenone conc. (ng/mL)	n per Site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
500	10	10	0	10	0	10	0
750	10	8	2	9	1	9	1
1,250	10	2	8	3	7	1	9
1,500	10	0	10	0	10	0	10

CARFENTANYL (CFYL 500)

Carfentanyl conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
250	10	10	0	10	0	10	0
375	10	7	3	9	1	8	2
625	10	2	8	1	9	2	8
750	10	0	10	0	10	0	10

DIAZEPAM (DIA 300)

Diazepam conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
150	10	10	0	10	0	10	0
225	10	9	1	9	1	9	1
375	10	1	9	1	9	1	9
450	10	0	10	0	10	0	10

3,4-METHYLENEDIOXYAMPHETAMINE (MDA 500)

3,4-Methylenedioxy-amphetamine conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
250	10	10	0	10	0	10	0
375	10	9	1	9	1	9	1
625	10	1	9	1	9	1	9
750	10	0	10	0	10	0	10

METHYLENEDIOXYPYROVALERONE (MDPV 1,000)

3, 4-methylenedioxy-pyrovalerone conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
500	10	10	0	10	0	10	0
750	10	9	1	9	1	8	2
1250	10	1	9	1	9	1	9
1500	10	0	10	0	10	0	10

METHYLPHENIDATE (MPD 300)

Methylphenidate conc. (ng/mL)	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
150	10	10	0	10	0	10	0
225	10	9	1	8	2	9	1
375	10	1	9	2	8	1	9
450	10	0	10	0	10	0	10

2-ETHYLIDENE-1,5-DIMETHYL-3,3-DIPHENYLPYRROLIDINE (EDDP 100)

2-ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine conc.	n per site	Site A		Site B		Site C	
		-	+	-	+	-	+
0	10	10	0	10	0	10	0
50	10	10	0	10	0	10	0
75	10	9	1	9	1	9	1
125	10	1	9	2	8	1	9
150	10	0	10	0	10	0	10

Analytical Sensitivity

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

Drug Concentration Cut-off Range	ACE 5,000		AMP 1,000		BAR 300		BZO 300		BUP 10		COC 300		THC 50		MQL 300		α-PVP 1,000	
	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+
0% Cut-off	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0
-50% Cut-off	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0
-25% Cut-off	26	4	26	4	27	3	27	3	26	4	26	4	26	4	26	4	26	4
Cut-off	14	16	13	17	16	14	14	16	14	16	13	17	14	16	15	15	15	15
+25% Cut-off	3	27	8	22	8	22	3	27	3	27	3	27	3	27	3	27	3	27
+50% Cut-off	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30
300% Cut-off	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30

Drug Concentration Cut-off Range	MDMA 500		MOP/ OPI 300		OPI 2,000		PCP 25		PPX 300		TCA 1,000		MTD 300		MET 1,000	
	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+
0% Cut-off	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0
-50% Cut-off	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0
-25% Cut-off	25	5	27	3	25	5	25	5	26	4	27	3	26	4	27	3
Cut-off	15	15	15	15	15	15	15	15	15	15	16	14	14	16	16	14
+25% Cut-off	3	27	5	25	5	25	3	27	3	27	4	26	3	27	3	27
+50% Cut-off	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30
300% Cut-off	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30

Drug Concentration Cut-off Range	OXY 100		COT 200		FYL 200		FYL 20		TML 100		KET 1,000		K2 50		K2 30		ABP/ K3 10		MPD 1,000	
	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+
0% Cut-off	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0
-50% Cut-off	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0
-25% Cut-off	27	3	27	3	27	3	27	3	27	3	27	3	27	3	27	3	25	5	26	4
Cut-off	15	15	15	15	14	16	15	15	15	15	15	15	15	15	16	14	15	15	14	16
+25% Cut-off	4	26	4	26	4	26	4	26	4	26	4	26	3	27	4	26	4	26	5	25
+50% Cut-off	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30
300% Cut-off	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30

Drug Concentration Cut-off Range	ZOL 50		LSD 20		MDPV 500		MCAT 500		AMP 500		AMP 300		AMP 100		THC 25		MET 500		LSD 10	
	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+
0% Cut-off	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0
-50% Cut-off	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0
-25% Cut-off	26	4	27	3	26	4	28	2	26	4	26	4	26	4	26	4	27	3	27	3
Cut-off	15	15	14	16	14	16	17	13	13	17	15	15	15	15	13	17	14	16	14	16
+25% Cut-off	5	25	3	27	3	27	3	27	5	25	3	27	3	27	5	25	3	27	4	26
+50% Cut-off	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30
300% Cut-off	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30	0	30

Drug Concentration	CFYL 500		COC 150		DIA 300		MDA 500		MDPV 1,000		MPD 300		MET 300	
Cut-off Range	-	+	-	+	-	+	-	+	-	+	-	+	-	+
0% Cut-off	30	0	30	0	30	0	30	0	30	0	30	0	30	0
-50% Cut-off	30	0	30	0	30	0	30	0	30	0	30	0	30	0
-25% Cut-off	25	5	27	3	27	3	26	4	26	4	26	4	27	3
Cut-off	14	16	14	16	15	15	15	15	14	16	14	16	16	14
+25% Cut-off	6	24	4	26	3	27	3	27	3	27	5	25	3	27
+50% Cut-off	0	30	0	30	0	30	0	30	0	30	0	30	0	30
300% Cut-off	0	30	0	30	0	30	0	30	0	30	0	30	0	30

Drug Concentration Cut-off Range	TML 200		KET 100		EDDP 100		BZO 200		BUP 5	
	-	+	-	+	-	+	-	+	-	+
0% Cut-off	30	0	30	0	30	0	30	0	30	0
-50% Cut-off	30	0	30	0	30	0	30	0	30	0
-25% Cut-off	27	3	26	4	27	3	26	4	27	3
Cut-off	15	15	14	16	16	14	14	16	14	16
+25% Cut-off	3	27	4	26	3	27	3	27	3	27
+50% Cut-off	0	30	0	30	0	30	0	30	0	30
300% Cut-off	0	30	0	30	0	30	0	30	0	30

Analytical Specificity

The following table lists the concentrations of compounds (ng/mL) that are detected as positive specimen by the Multi-Drug Surface Test Panel at 5 minutes.

Analytes	**Concentration (ng/mL)**	**Analytes**	**Concentration (ng/mL)**
ACETAMINOPHEN (ACE 5,000)			
Acetaminophen	5,000		
AMPHETAMINE (AMP 1,000)			
D,L-Amphetamine sulfate	300	Phentermine	800
L-Amphetamine	25,000	Maprotiline	50,000
(±) 3,4-Methylenedioxy amphetamine	400	Methoxyphenamine	6,000
		D-Amphetamine	1,000
AMPHETAMINE (AMP 500)			
D,L-Amphetamine sulfate	150	Phentermine	400
L-Amphetamine	12,500	Maprotiline	25,000
(±) 3,4-Methylenedioxy amphetamine	200	Methoxyphenamine	3,000
		D-Amphetamine	500
AMPHETAMINE (AMP 300)			
D,L-Amphetamine sulfate	90	Phentermine	240
L-Amphetamine	7,500	Maprotiline	15,000
(±) 3,4-Methylenedioxy amphetamine	120	Methoxyphenamine	1800
		D-Amphetamine	300
AMPHETAMINE (AMP 100)			
D,L-Amphetamine sulfate	30	Phentermine	80
L-Amphetamine	2,500	Maprotiline	5,000
(±) 3,4-Methylenedioxy amphetamine	40	Methoxyphenamine	600
		D-Amphetamine	100
BARBITURATES (BAR 300)			
Amobarbital	3,000	Alphenol	300
5,5-Diphenylhydantoin	6,000	Aprobarbital	450
Allobarbital	450	Butabarbital	150
Barbital	6,000	Butalbital	6,000
Talbutal	30	Butethal	450
Cyclopentobarbital	25,000	Phenobarbital	300
Pentobarbital	6,000	Secobarbital	300
BENZODIAZEPINES (BZO 300)			
Alprazolam	100	Bromazepam	780
a-hydroxyalprazolam	1,500	Chlordiazepoxide	780
Clobazam	200	Nitrazepam	200
Clonazepam	390	Norchlordiazepoxide	100
Clorazepatedipotassium	390	Nordiazepam	780
Delorazepam	780	Oxazepam	300
Desalkylflurazepam	200	Temazepam	100
Flunitrazepam	200	Diazepam	1,500
(±) Lorazepam	3,100	Estazolam	6,250
RS-Lorazepamglucuronide	200	Triazolam	3,100
Midazolam	6,250		
BENZODIAZEPINES (BZO 200)			
Alprazolam	67	Bromazepam	520
a-hydroxyalprazolam	1,000	Chlordiazepoxide	520
Clobazam	133	Nitrazepam	133
Clonazepam	260	Norchlordiazepoxide	67
Clorazepatedipotassium	260	Nordiazepam	780
Delorazepam	520	Oxazepam	300
Desalkylflurazepam	133	Temazepam	67
Flunitrazepam	133	Diazepam	1,500
(±) Lorazepam	2,066	Estazolam	4,167
RS-Lorazepamglucuronide	133	Triazolam	2,066
Midazolam	4,167		
BUPRENORPHINE (BUP 10)			
Buprenorphine	10	Norbuprenorphine	50
Buprenorphine 3-D-Glucuronide	50	Norbuprenorphine 3-D-Glucuronide	100
BUPRENORPHINE (BUP 5)			
Buprenorphine	5	Norbuprenorphine	25
Buprenorphine 3-D-Glucuronide	25	Norbuprenorphine 3-D-Glucuronide	50
COCAINE (COC 300)			
Benzoylecgonine	300	Cocaethylene	12,500
Cocaine HCl	200	Ecgonine	30,000
COCAINE (COC 150)			
Benzoylecgonine	150	Cocaethylene	6,250
Cocaine HCl	100	Ecgonine	15,000
MARIJUANA (THC 50)			
Cannabinol	20,000	Δ^8-THC	15,000
11-nor-Δ^8-THC-9 COOH	30	Δ^9-THC	15,000
11-nor-Δ^9-THC-9 COOH	50		
MARIJUANA (THC 25)			
Cannabinol	10,000	Δ^8-THC	7,500
11-nor-Δ^8-THC-9 COOH	15	Δ^9-THC	7,500
11-nor-Δ^9-THC-9 COOH	25		
METHADONE (MTD 300)			
Methadone	300	Doxylamine	100,000
METHAMPHETAMINE (MET 1, 000)			
ρ-Hydroxymethamphetamine	25,000	(±)-3,4-Methylenedioxy-methamphetamine	6,250
D-Methamphetamine	1,000		
L-Methamphetamine	12,500	Mephentermine	50,000
METHAMPHETAMINE (MET 500)			
ρ-Hydroxymethamphetamine	12,500	(±)-3,4-Methylenedioxy-methamphetamine	3,125
D-Methamphetamine	500		
L-Methamphetamine	6,250	Mephentermine	25,000
METHAMPHETAMINE (MET 300)			
ρ-Hydroxymethamphetamine	7,500	(±)-3,4-Methylenedioxy-methamphetamine	2,100
D-Methamphetamine	300		
L-Methamphetamine	3,750	Mephentermine	15,000
METHYLENEDIOXYMETHAMPHETAMINE (MDMA 500) Ecstasy			
(±) 3,4-Methylenedioxy methamphetamine HCl	500	3,4-Methylenedioxyethyl-amphetamine	300
(±) 3,4-Methylenedioxyamphe-tamine HCl	3,000		
MORPHINE (MOP/OPI 300)			
Codeine	200	Norcodeine	6,000
Levorphanol	1,500	Normorphone	50,000
Morphine-3-β-D-Glucuronide	800	Oxycodone	30,000
Ethylmorphine	6,000	Oxymorphone	50,000
Hydrocodone	50,000	Procaine	15,000
Hydromorphone	3,000	Thebaine	6,000
6-Monoacethylmorphine	400	Morphine	300
OPIATE (OPI 2,000)			
Codeine	2,000	Norcodeine	25,000
Levorphanol	25,000	Normorphone	50,000
Morphine-3-β-D-Glucuronide	2,000	Oxycodone	25,000
Ethylmorphine	3,000	Oxymorphone	25,000
Hydrocodone	50,000	Procaine	50,000
Hydromorphone	15,000	Thebaine	25,000
6-Monoacethylmorphine	3,000	Morphine	2,000
METHAQUALONE (MQL 300)			
Methaqualone	300		
PHENCYCLIDINE (PCP 25)			
Phencyclidine	25	4-Hydroxyphencyclidine	6,250
PROPOXYPHENE (PPX 300)			
D-Propoxyphene	300	D-Norpropoxyphene	300
TRICYCLIC ANTIDEPRESSANTS (TCA 1,000)			
Nortriptyline	1,000	Imipramine	400
Nordoxepine	400	Clomipramine	50,000
Trimipramine	3,000	Doxepine	1,500
Amitriptyline	1,500	Maprotiline	1,500
Promazine	3,000	Promethazine	25,000
Desipramine	200	Perphenazine	25,000
Cyclobenzaprine	1,500		
TRAMADOL (TML 100)			
n-Desmethyl-cis-tramadol	200	o-Desmethyl-cis-tramadol	7,000
Cis-tramadol	150	Phencyclidine	100,000
Procyclidine	100,000	d,l-O-Desmethyl venlafaxine	50,000
TRAMADOL (TML 200)			
n-Desmethyl-cis-tramadol	400	o-Desmethyl-cis-tramadol	14,000
Cis-tramadol	300	Phencyclidine	200,000
Procyclidine	200,000	d,l-O-Desmethyl venlafaxine	100,000
KETAMINE (KET 1, 000)			
Ketamine	1,000	Benzphetamine	25,000
Dextromethorphan	1,500	(+) Chlorpheniramine	25,000
Methoxyphenamine	12,500	Clonidine	100,000
d-Norpropoxyphene	12,500	EDDP	50,000
Promazine	25,000	4-Hydroxyphencyclidine	50,000
Promethazine	25,000	Levorphanol	50,000
Pentazocine	12,500	MDE	50,000
Phencyclidine	12,500	Meperidine	25,000
Tetrahydrozoline	400	d-Methamphetamine	25,000
Mephentermine	25,000	l-Methamphetamine	50,000
(1R, 2S) - (-)-Ephedrine	100,000	3,4-Methylendioxymethamphetamine (MDMA)	100,000
Disopyramide	12,500	Thioridazine	50,000
KETAMINE (KET 100)			
Ketamine	100	Benzphetamine	2,500

Dextromethorphan	150	(+) Chlorpheniramine	2,500
Methoxyphenamine	1,250	Clonidine	10,000
d-Norpropoxyphene	1,250	EDDP	5,000
Promazine	2,500	4-Hydroxyphencyclidine	5,000
Promethazine	2,500	Levorphanol	5,000
Pentazocine	1,250	MDE	5,000
Phencyclidine	1,250	Meperidine	2,500
Tetrahydrozoline	40	d-Methamphetamine	2,500
Mephentermine	2,500	l-Methamphetamine	5,000
(1R, 2S) - (-)-Ephedrine	10,000	3,4-Methylendioxymethamphetamine (MDMA)	10,000
Disopyramide	1,250	Thioridazine	5,000
OXYCODONE (OXY 100)			
Oxycodone	100	Hydromorphone	50,000
Oxymorphone	200	Naloxone	25,000
Levorphanol	50,000	Naltrexone	25,000
Hydrocodone	6,250		
COTININE (COT 200)			
(-)-Cotinine	200	(-)-Nicotine	3,000
FENTANYL (FYL 200)			
Alfentanyl	600,000	Buspirone	15,000
Fenfluramine	40,000	Fentanyl	100
Norfentanyl	20	Sufentanyl	60,000
FENTANYL (FYL 20)			
Alfentanyl	60,000	Buspirone	1,500
Fenfluramine	4,000	Fentanyl	10
Norfentanyl	2	Sufentanyl	5,000
SYNTHETIC MARIJUANA (K2-50)			
JWH-018 5-Pentanoic acid	50	JWH-073 4-butanoic acid	50
JWH-018 4-Hydroxypentyl	400	JWH-018 5-Hydroxypentyl	500
JWH-073 4-Hydroxybuty	500		
SYNTHETIC MARIJUANA (K2-30)			
JWH-018 5-Pentanoic acid	30	JWH-073 4-butanoic acid	30
JWH-018 4-Hydroxypentyl	240	JWH-018 5-Hydroxypentyl	300
JWH-073 4-Hydroxybuty	300		
AB-PINACA (ABP/K3 10)			
AB-PINACA	10	AB-PINACA 5-Pentanoic	10
AB-PINACA 5-hydroxypentyl	10	AB-FUBINACA	10
AB-PINACA 4-hydroxypentyl	10,000	UR-144 5-Pentanoic	5,000
UR-144 5-hydroxypentyl	10,000	UR-144 4-hydroxypentyl	10,000
APINACA 5-hydroxypentyl	10,000	ADB-PINACA Pentanoic Acid	10
ADB-PINACA N-(5-hydroxypentyl)	30	5-fluoro AB-PINACA N-(4-hydroxypentyl)	30
5-fluoro AB-PINACA	25		
3, 4-METHYLENEDIOXYPYROVALERONE (MDPV 500)			
3,4-methylenedioxypyrovalerone	500		
LYSERGIC ACID DIETHYLAMIDE (LSD 20)			
Lysergic Acid Diethylamide	20	Fentanyl	15
CARFENTANYL (CFYL 500)			
Carfentanyl	500	Fentanyl	100
Sufentanil	50000	(±)cis-3-Menthylfentanyl	2000
Ramifentanil	10000	Butyl fentanyl	150
DIAZEPAM (DIA 300)			
Diazepam	300	Midazolam	6,000
Clobazam	200	Nitrazepam	200
Clonazepam	500	Norchlordiazepoxide	100
Clorazepate dipotassium	500	Nordiazepam	900
Alprazolam	100	Flunitrazepam	200

a-hydroxyalprazolam	1,500	(±) Lorazepam	3,000
Bromazepam	900	RS-Lorazepam glucuronide	200
Chlordiazepoxide	900	Triazolam	3,000
Estazolam	6,000	Temazepam	100
Delorazepam	900	Oxazepam	300
Desalkylflurazepam	200		
(±)3,4-METHYLENEDIOXYAMPHETAMINE (MDA 500)			
(±)3,4-Methylenedioxy-amphetamine	500	D-Amphetamine	2000
D,L-Amphetamine sulfate	400	Phentermine	2000
L-Amphetamine	30,000	Maprotiline	100,000
Methoxyphenamine	5,000		
METHYLENEDIOXYPYROVALERONE(MDPV 1,000)			
3,4-methylenedioxypyrovalerone	1,000		
METHYLPHENIDATE (MPD 300)			
Methylphenidate	300		
LYSERGIC ACID DIETHYLAMIDE (LSD 10)			
Lysergic Acid Diethylamide	10	Fentanyl	7.5
METHYLPHENIDATE (MPD 1,000)			
Methylphenidate	1,000	Ritalinic acid	3,000
ZOLPIDEM (ZOL 50)			
Zolpidem	50		
ALPHA-PYRROLIDINOVALEROPHENONE (α-PVP 1,000)			
alpha-Pyrrolidinovalerophenone	1,000		
METHCATHINONE (MCAT 500)			
S(-)-Methcathinone HCl	500	R(+)-Methcathinone HCl	1,500
Methoxyphenamine	100,000	3-Fluoromethcathinone HCl	1,500
2-ETHYLIDENE-1,5-DIMETHYL-3,3-DIPHENYLPYRROLIDINE (EDDP 100)			
2-Ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine (EDDP)			100

Cross-Reactivity

A study was conducted to determine the cross-reactivity of the test with compounds in either drug-free or drug positive specimen above related calibrator substances. The following compounds show no cross-reactivity when tested with the Multi-Drug Surface Test Panel at a concentration of 100 µg/mL.

Non Cross-Reacting Compounds

Acetophenetidin	Cortisone	Zomepirac	d-Pseudoephedrine
N-Acetylprocainamide	Creatinine	Ketoprofen	Quinidine
Acetylsalicylic acid	Deoxycorticosterone	Labetalol	Quinine
Aminopyrine	Dextromethorphan	Loperamide	Salicylic acid
Amoxicillin	Diclofenac	Meprobamate	Serotonin
Ampicillin	Diflunisal	Methoxyphenamine	Sulfamethazine
l-Ascorbic acid	Digoxin	Methylphenidate	Sulindac
Apomorphine	Diphenhydramine	Nalidixic acid	Tetracycline
Aspartame	Ethyl-p-aminobenzoate	Naproxen	Tetrahydrocortisone, 3-acetate
Atropine	β-Estradiol	Niacinamide	Tetrahydrocortisone
Benzilic acid	Estrone-3-sulfate	Nifedipine	Tetrahydrozoline
Benzoic acid	Erythromycin	Norethindrone	Thiamine
Bilirubin	Fenoprofen	Noscapine	Thioridazine
d,l-Brompheniramine	Furosemide	d,l-Octopamine	d,l-Tyrosine
Caffeine	Gentisic acid	Oxalic acid	Tolbutamide
Cannabidiol	Hemoglobin	Oxolinic acid	Triamterene
Chloral hydrate	Hydralazine	Oxymetazoline	Trifluoperazine
Chloramphenicol	Hydrochlorothiazide	Papaverine	Trimethoprim
Chlorothiazide	Hydrocortisone	Penicillin-G	d,l-Tryptophan
d,l-Chlorpheniramine	o-Hydroxyhippuric acid	Perphenazine	Uric acid
Chlorpromazine	3-Hydroxytyramine	Phenelzine	Verapamil
Cholesterol	d,l-Isoproterenol	Prednisone	
Clonidine	Isoxsuprine	d,l-Propanolol	

【BIBLIOGRAPHY】

1. Hawks RL, CN Chiang. *Urine Testing for Drugs of Abuse*. National Institute for Drug Abuse (NIDA), Research Monograph 73, 1986.
2. Winger, Gail, A Handbook of Drug and Alcohol Abuse, Third Edition, Oxford Press, 1992, page 146.
3. Glass, IB. The International Handbook of Addiction Behavior. Routledge Publishing, New York, NY. 1991; 216
4. Baselt, R.C., Disposition of Toxic Drugs and Chemicals in Man, 6th Ed.
5. Du B, Shan A, Zhang Y, Zhong X, Chen D, Cai K (2014). "Zolpidem Arouses Patients in Vegetative State After Brain Injury". The American Journal of the Medical Sciences 347 (3): 178–82.
6. "Prescribing Information" (PDF). sanofi-aventis. 2007. Retrieved2011-08-29.
7. Stanley, Theodore H.; Egan, Talmage D.; Aken, Hugo Van (February 2008). "A Tribute to Dr. Paul A. J. Janssen: Entrepreneur Extraordinaire, Innovative Scientist, and Significant Contributor to Anesthesiology". Anesthesia & Analgesia. 106 (2): 451–462.
8. Vos, V. De (22 July 1978). "Immobilisation of free-ranging wild animals using a new drug". Veterinary Record. 103 (4): 64–68.Dominguez KD, Lomako DM，Katz RW，et al. Opioid withdraw in critically ill neonates.Ann Pharmacotherm，2003，37（4）：473-477.
9. Mounteney, Jane; Giraudon, Isabelle; Denissov, Gleb; Griffiths, Paul (July 2015). "Fentanyls: Are we missing the signs? Highly potent and on the rise in Europe". International Journal of Drug Policy. 26 (7): 626–631.
10. "Established Aggregate Production Quotas for Schedule I and II Controlled Substances and Assessment of Annual Needs for the List I Chemicals Ephedrine, Pseudoephedrine, and Phenylpropanolamine for 2016". Federal Register. 6 October 2015.

Index of Symbols

	Consult instructions for use or consult electronic instructions for use		Contains sufficient for <n> tests		Temperature limit
	Caution	LOT	Batch code	REF	Catalogue number
	Do not use if package is damaged and consult instructions for use		Use-by date		Do not re-use
	Manufacturer				

Hangzhou AllTest Biotech Co.,Ltd.
#550,Yinhai Street
Hangzhou Economic & Technological Development Area
Hangzhou, 310018 P.R. China
Web: www.alltests.com.cn Email: info@alltests.com.cn

Number: 145111908
Revision date: 2023-09-12