UScreen Drug Test Cup

Catalogue No. See Box label

For in vitro diagnostic use

The UScreen Drug Test Cup offers qualitative detection of the following drugs of abuse and their principal metabolites in human urine at specified cut-off levels for use in employment and insurance testing: Amphetamine (AMP500), Amphetamine (AMP1000), Barbiturates (BAR), Benzodiazepines (BZO), Buprenorphine (BUP), Cocaine (COC150), Cocaine (COC300), Fentanyl (FTY), Synthetic Cannabinoids (K2), Methylenedioxymethamphetamine (MDMA), Methamphetamine (MET500/mAMP500), Methamphetamine (MET1000/mAMP1000), Opiates 300 (MOP/OPI300), Methadone (MTD), Opiates 2000 (OPI), Oxycodone (OXY), Propoxyphene (PPX), Nortriptyline (TCA), Cannabinoids (THC), Tramadol (TRA).

INTENDED USE

The UScreen Drug Test Cup is a rapid, one-step, lateral flow immunoassay for the visual, qualitative detection of multiple drugs and drug metabolites in human urine, for use in employment and insurance testing.

The various drugs tested and the cutoff levels are listed in the chart below. The UScreen Drug Test Cup has the capacity to test up to 18 drugs, including any combination of drugs listed below. A "Specimen Validity /Adulterant" test strip is also available to test for Oxidants/Bleach, Specific Gravity, Creatinine, PH, Nitrite. The performance data listed in this package insert may or may not be relevant to your particular drug screen cup. Please refer to the box labels and test strip labels on the drug screen cup to determine the drug tests included.

Drug(Identifier)	Calibrator	Cut-off level	Minimum detection time	Maximum detection time
Amphetamine (AMP 500)	d-Amphetamine	500 ng/mL	2-7 hours	1-2 days
Amphetamine (AMP 1000)	d-Amphetamine	1000 ng/mL	2-7 hours	1-2 days
Secobarbital (BAR)	Secobarbital	300 ng/mL	2-4 hours	1-4 days
Buprenorphine (BUP)	Buprenorphine	10 ng/mL	4 hours	1-3 days
Oxazepam (BZO)	Oxazepam	300 ng/mL	2-7 hours	1-2 days
Cocaine (COC 150)	Benzoylecgonine	150 ng/mL	1-4 hours	2-4 days
Cocaine (COC 300)	Benzoylecgonine	300 ng/mL	1-4 hours	2-4 days
Fentanyl (FTY)	Norfentanyl	20 ng/mL	1-4 hours	1-3 days
Synthetic Cannabinoids (K2)	JWH-018 Pentanoic Acid JWH-073 Butanoic Acid	50 ng/mL 50 ng/mL	8-12hours	Up to 5+ days
Methylenedioxymethamphetamine (MDMA)	3,4-Methylenedioxymethamphetamine HCl (MDMA)	500 ng/mL	2-7 hours	2-4 days
Methamphetamine (MET500/mAMP500)	D(+)-Methamphetamine	500 ng/mL	2-7 hours	2-4 days
Methamphetamine (MET1000/mAMP1000)	D(+)-Methamphetamine	1000 ng/mL	2-7 hours	2-4 days
Opiates 300 (MOP/OPI300)	Morphine	300 ng/mL	2 hours	2-3 days
Methadone (MTD)	Methadone	300 ng/mL	3-8 hours	1-3 days
Opiates 2000 (OPI)	Morphine	2000 ng/mL	2 hours	2-3 days
Oxycodone (OXY)	Oxycodone	100 ng/mL	4 hours	1-3 days
Propoxyphene (PPX)	Propoxyphene	300 ng/mL	8-12hours	5-10days
Nortriptyline (TCA)	Nortriptyline	1000 ng/mL	8-12hours	2-7 days
Cannabinoids (THC)	11-nor-Δ9-THC-9-COOH	50 ng/mL	2 hours	Up to 5+ days
Tramadol (TRA)	Tramadol	100 ng/mL	8-12hours	3-7 days
Tramadol (TRA)	Tramadol	200 ng/mL	8-12hours	3-7 days

This assay provides only a preliminary test result. A more specific analytical method must be used in order to obtain a confirmed result. Gas chromatography/mass spectrometry (GC/MS) and liquid chromatography/tandem mass spectrometry (LC/MS-MS) are preferred confirmatory methods. Professional judgment should be applied to any drug test result, particularly when preliminary results are positive.

PRINCIPLE

The UScreen Drug Test Cup is a competitive immunoassay that is used to screen for the presence of drugs and/or metabolites in urine. It is a chromatographic absorbent device in which drugs or drug metabolites in a sample compete for a limited number of antibody-dye conjugate binding sites.

When the absorbent end of the test device is immersed into the urine sample, the urine is absorbed into the device by capillary action, mixes with the antibody-dye conjugate, and flows across the pre-coated membrane. When sample drug levels are at or above the target cutoff, the drug in the sample binds to the antibody-dye conjugate preventing the antibody-dye conjugate from binding to the drug-protein pre-coated in the test region (T). This prevents the development of a distinct colored line in the test region indicating a potentially positive result.

When sample drug levels are zero or below the target cutoff (the detection sensitivity of the test), antibody-dye conjugate binds to the drug-protein pre-coated in the test region (T) of the device. This produces a colored test line that, regardless of its intensity, indicates a negative result.

To serve as a procedure control, a colored line will appear on the control region (C), if the test has been performed properly.

WARNINGS AND PRECAUTIONS

- Not to be used for clinical diagnosis.
- This kit is for external use only. Do not swallow.
- Discard after first use. The test cannot be used more than once.
- Do not use test kit beyond expiration date.
- Do not use the kit if the pouch is punctured or not sealed.
- Keep out of the reach of children.
- Do not read after 5 minutes.

STORAGE AND STABILITY

- Store between 4-30ºC (40-86ºF) in the sealed pouch up to the expiration date.
- Keep away from direct sunlight, moisture and heat.
- DO NOT FREEZE.

MATERIAL

Materials Provided

- 25 Test devices (One test cup per pouch. Each pouch contains a test cup and desiccant. Remove desiccant from pouch. The desiccant is for storage purposes only.)
- One (1) package insert
- One (1) adulteration color comparison chart for interpretation of adulteration test results (if equipped)
- 25 Security seals (if provided)

Material Required But Not Provided

- Timer

SPECIMEN COLLECTION AND PREPARATION

- Wash your hands with soap and warm water. Open the sealed pouch and remove the UScreen Drug Test Cup.
- Give the cup with cap in place to the donor. Have the donor provide a urine sample by removing the cap, and voiding urine directly into the cup. Have the donor replace and tighten the cap, and return the cup with urine sample to the collector.
- The sample volume should be at or above the minimum urine level mark on the cup to provide adequate sample volume for laboratory confirmation, if required.

TEST PROCEDURE

1. After the urine has been collected, re-cap the cup and place the UScreen Drug Test Cup on a flat surface.
2. Read the temperature immediately to verify that the urine temperature is within the acceptable range 32-38˚C (90-100˚F).
3. Peel the label from right to left.
4. If the cup has the adulterant strip option, compare the adulterant test pads to the colors on the adulteration strip color chart at the times specified. Proper read time is critical to ensure correct test results. If adulterant pads indicate abnormal results, a second specimen should be collected and tested. For detailed operation instructions, please refer to the Procedure Card (and Color Chart if included).
5. Do not determine a positive result before 5 minutes. Do not interpret any result after 10 minutes.

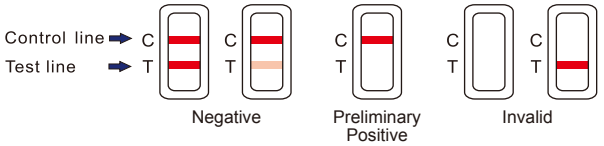
INTERPRETATION OF RESULTS

Negative (-)
A colored band is visible in each control region and the appropriate test region. It indicates that the concentration of the corresponding drug of that specific test zone is zero or below the detection limit of the test.

Preliminary Positive (+)
A colored band is visible in each control region. No colored band appears in the appropriate test region. It indicates a positive result for the corresponding drug of that specific test zone.

Invalid
If a colored line is not visible in each of the control regions, or a color line is only visible in each of the test regions, the test is invalid. Another test should be run to reevaluate the specimen. Please contact the distributor with the lot number for technical assistance.

Note: There is no meaning attributed to line color intensity or width.



A preliminary positive test result does not always mean a person took drugs and a negative test result does not always mean a person did not take drugs. There are a number of factors that influence the reliability of drug tests.

What is a false positive test?
The definition of a false positive test would be an instance where a substance is identified incorrectly by the UScreen Drug Test Cup. The most common causes of a false positive test are cross reactants. Certain foods and medicines, diet plan drugs and nutritional supplements may cause a false positive test result with this product.

What is a false negative test?
The definition of a false negative test is that the initial drug is present but isn't detected by the UScreen Drug Test Cup. If the sample is diluted, or the sample is adulterated that may cause a false negative result.

QUALITY CONTROL

Users should follow the appropriate federal, state, and local guidelines concerning the frequency of assaying external quality control materials.
Though there is an internal procedural control line in the test device of Control region, the use of external controls is strongly recommended as good laboratory testing practice to confirm the test procedure and to verify proper test performance. Positive and negative control should give the expected results. When testing the positive and negative control, the same assay procedure should be followed.

LIMITATIONS

1. This test has been developed for testing urine samples only. The performance of this test using other specimens has not been substantiated.
2. This test is a qualitative screening assay. It is not designed to determine the quantitative concentration of drugs or the level of intoxication.
3. It is possible that technical or procedural errors, as well as other interfering substances in the urine specimen may cause erroneous results.
4. A negative result may not necessarily indicate drug-free urine. Negative results can be obtained when drug is present but below the cut-off level of the test.
5. The test result does not distinguish between illicit drugs and prescribed medicines.
6. A positive result may be obtained from certain foods or food supplements.
7. Adulterants, such as bleach and/or alum, in urine specimens may produce erroneous results regardless of the analytical method used. If adulteration is suspected, the test should be repeated with another urine specimen.
8. The adulteration assays are for screening purposes only; all abnormal results should be confirmed by an alternative methodology.

SUMMARY

Amphetamine (AMP)
Amphetamine and the structurally related "designer" drugs are sympathomimetic amines whose biological effects include potent central nervous system (CNS) stimulation, anorectic, hyperthemic, and cardiovascular properties. They are usually taken orally, intravenously, or by smoking. Amphetamines are readily absorbed from the gastrointestinal tract and are then either deactivated by the liver or excreted unchanged in the urine with a half-life of about 12 hours. It can be detected in the urine for 1 to 2 days after use. Amphetamine is metabolized to deaminated (hippuric and benzoic acids) and hydroxylated metabolites. Methamphetamine is partially metabolized to amphetamine and its major active metabolite. Amphetamines increase the heart rate and blood pressure, and suppress the appetite. Some studies indicate that heavy abuse may result in permanent damage to certain essential nerve structural in the brain.

Secobarbital (BAR)
Barbiturates are a class of central nervous system depressions. They have a wide range of half-life of 2 to 40 hours and can be detected in the urine for 1 to 4 days after use. Phenobarbital is a long acting barbiturate derivative that has been used as a daytime sedative and very extensively as an anticonvulsant. Pentobarbital and secobarbital are two examples of a short acting barbiturate sedative. Abuse of barbiturates can lead not only to impaired motor coordination and mental disorder, but also to respiratory collapse, coma and even death. Barbiturates are taken orally, rectally, or by intravenous and intramuscular injections. Short-acting barbiturates will generally be excreted in urine as metabolites, while the long-acting barbiturates will primarily appear unchanged.

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™; all of which contain Buprenorphine HCl alone or in combination with Naloxone HCl. Therapeutically, Buprenorphine is used as a substitution treatment for opioid addicts. A 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. 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 detection window for the parent drug in urine is thought to be approximately 3 days.

Oxazepam (BZO)
Benzodiazepines are the most widely used anxiolytic drugs. They are used extensively as anti-anxiety agents, hypnotics, muscle relaxants and anti-convulsants. They are taken orally or sometimes by injection and have a wide range of half-life from 2 to 40 hours. They can generally be detected for 1 to 2 days after Benzodiazepines use. Benzodiazepines are metabolized in the liver. Some Benzodiazepines and their metabolites are excreted in the urine. Their use can result in drowsiness and/or confusion. Benzodiazepines potentiate alcohol and other CNS depressants. Psychological and physical dependence on benzodiazepines can develop if high doses of the drug are given over a prolonged period.

Cocaine (COC)
Cocaine derived from leaves of coca plant, is a potent central nervous system stimulant and a local anesthetic. Among the psychological effects induced by using cocaine are euphoria, confidence and a sense of increased energy, accompanied by increased heart rate, dilation of the pupils, fever, tremors and sweating. Cocaine is excreted in urine primarily as benzoylecgonine in a short period of time.

Fentanyl (FTY)
Fentanyl is a potent, synthetic narcotic analgesic with a rapid onset and short duration of action. It was first synthesized by Janssen Pharmaceutica (Belgium) in the late 1950s, and It is approximately 100 times more potent than morphine. Fentanyl is a strong agonist at the μ-opioid receptors. Historically it has been used to treat breakthrough pain and is commonly used in pre-procedures as a pain reliever as well as an anesthetic in combination with a benzodiazepine. Fentanyl is frequently given intrathecally as part of spinal anesthesia or epidurally for epidural anesthesia and analgesia.

Synthetic cannabinoids (K2)
Synthetic cannabinoids are psychoactive designer drugs derived of natural herbs sprayed with synthetic chemicals that, when consumed, allegedly mimic the effects of cannabis, they are best known by the brand names K2 and Spice. Synthetic cannabinoids act on the body in a similar way to cannabinoids naturally found in cannabis, such as THC. Although synthetic cannabinoids do not produce positive results in drug tests for cannabis, it is possible to detect the metabolites in human urine.

Methylenedioxymethamphetamine (MDMA)
Methylenedioxymethamphetamine (ecstasy) is a designer drug first synthesized in 1914 by a German drug company for the treatment of obesity. 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.

Methamphetamine (MET/mAMP)

Methamphetamine is a potent sympathomimetic agent with therapeutic applications. Acute higher doses lead to enhanced stimulation of the central nervous system and induce euphoria, alertness, and a sense of increased energy and power. More acute responses produce anxiety, paranoia, psychotic behavior, and cardiac dysrhythmias. The pattern of psychosis which may appear at half-life of about 15 hours and is excreted in urine as amphetamine and oxidized as deaminated and hydroxylated derivatives. However, 40% of methamphetamine is excreted unchanged. Thus the presence of the parent compound in the urine indicates methamphetamine use.

Morphine (MOP/OPI 300)

The opiates such as heroin, morphine, and codeine are derived from the resin of opium poppy. The principal metabolites of opiates are morphine, morphine-3-glucuronide normorphine and codeine with a half-life of about 3 hours. Heroin is quickly metabolized to morphine. Thus, morphine and morphine glucuronide might both be found in the urine of a person who has taken only heroin. The body also changes codeine to morphine. Thus, the presence of morphine (or the metabolite, morphine glucuronide) in the urine indicates heroin, morphine and/or codeine use.

The test for Morphine (MOP) of the UScreen Drug Test Cup yields a positive result when morphine in the urine exceeds 300ng/mL.

Methadone (MTD)

Methadone is a synthetic analgesic drug that is originally used in the treatment of narcotic addicts. Among the psychological effects induced by using methadone are analgesia, sedation and respiratory depression. Overdose of methadone may cause coma or even death. It is administered orally or intravenously and is metabolized in the liver and excreted in urine as methadone, EDDP, EMDA and methadol. The kidneys are a major route of methadone excretion. Methadone has a biological half-life of 15 to 60 hours.

Opiates (OPI 2000)

Opiates 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 central nervous system. Large doses of morphine can produce higher tolerance levels, physiological dependency in users, and may lead to substance abuse. Morphine is excreted unmetabolized, and is also the major metabolic product of codeine and heroin. Morphine is detectable in the urine for several days after an opiate dose.

The test for Morphine 2000 (OPI) of the UScreen Drug Test Cup yields a positive result when morphine in the urine exceeds 2000 ng/mL.

Oxycodone (OXY)

Oxycodone is known as Oxycontin and Roxicodone. It is an ingredient of Percodan, Percocet, Roxicet and Tylox. Oxycodone is a semi-synthetic opiates derived from opium. Like other opiates, Oxycodone is characterized by its analgesic properties, and the tendency for users to form a physical dependency and develop tolerance with extended use. Oxycodone is usually administered in combination with non-opiate analgesics such as acetaminophen and salicylates for the relief of moderate to severe pain. Oxycodone is a central nervous system depressant that may cause drowsiness, dizziness, lethargy, weakness and confusion. Toxicity in an overdose of Oxycodone can lead to stupor, coma, muscle flaccidity, severe respiratory depression, hypotension, and cardiac arrest.

Oxycodone is metabolized by N- and O-demethylation. One of the metabolites, oxymorphone, is a potent narcotic analgesic, while the other, noroxycodone, is relatively inactive. Between 33 to 61% of a single dose of Oxycodone is excreted in a 24 hour urine collection and consists of 13-19% free Oxycodone, 7-29% glucuronide conjugated Oxycodone, 13-14% glucuronide conjugated oxymorphone and an unknown amount of noroxycodone. The detection time window of Oxycodone is 1-3 days following use.

Propoxyphene (PPX)

Propoxyphene, a synthetic opiate agonist, is structurally similar to methadone. Propoxyphene is a narcotic analgesic used to relieve mild to moderate pain. The principal metabolites are nordextropropoxyphene. The combination usage of propoxyphene, aspirin, acetaminophen or other sedatives can lead cooperative interaction. Abuse of propoxyphene can lead nausea, vomit, astriction, illusion, hallucination, heart poisoning, lung dropsy and even death. Propoxyphene is metabolized in the liver and excreted in urine as nordextropropoxyphene. Thus the presence of the propoxyphene or its metabolites in the urine indicates propoxyphene use.

Nortriptyline (TCA)

TCA (Tricyclic Antidepressants) are commonly used for the treatment of depressive disorders. TCA overdoses can result in profound central nervous system depression, cardiotoxicity and anticholinergic effects. TCA overdose is the most common cause of death from prescription drugs. TCAs are taken orally or sometimes by injection. TCAs are metabolized in the liver. Both TCAs and their metabolites are excreted in urine mostly in the form of metabolites for up to ten days.

Cannabinoids (THC)

Cannabinoids is a hallucinogenic agent derived from the flowering portion of the hemp plant. The active ingredients in Cannabinoids, THC & Cannabinol can be metabolized and excreted as 11-nor- Δ 9-tetrahydrocannabinol-9-carboxylic acid with a half-life of 24 hours. It can be detected for 1 to 5 days after use. Smoking is the primary method of use of Cannabinoids/cannabis. Higher doses used by abusers produce central nervous system effects, altered mood and sensory perceptions, loss of coordination, impaired short-term memory, anxiety, paranoia, depression, confusion, hallucinations and increased heart rate. A tolerance to the cardiac and psychotropic effects can occur, and withdrawal syndrome produces restlessness, insomnia, anorexia and nausea.

Tramadol (TRA)

Tramadol [2-(dimethylaminomethyl)-1-(3-methoxyphenyl)cyclohexanol] is used similarly to codeine, to treat moderate to moderately severe pain. It is a synthetic analog of the phenanthrene alkaloid codeine and, as such, is an opioid and also a prodrug (codeine is metabolized to morphine, tramadol is converted to O-desmethyltramadol). Tramadol and its metabolites are excreted primarily in the urine with observed plasma half-lives of 6.3 and 7.4 hours for tramadol and O-desmethyltramadol(denoted M1), respectively. Approximately 30% of the dose is excreted in the urine as unchanged drug, whereas 60% of the dose is excreted as metabolites.

PERFORMANCE CHARACTERISTICS

Accuracy

1680 (eighty of each drug) clinical urine specimens were analyzed by GC-MS and by each corresponding UScreen Drug Test Cup. Each test was read by three viewers. Samples were divided by concentration into four categories: less than half the cutoff, near cutoff negative, near cutoff positive, and high positive. Results were as follows:

Drug test	Result		Drug-free	Less than half the cutoff concentration by GC/MS analysis	Near Cutoff Negative (Between 50% below the cutoff and the cutoff concentration)	Near Cutoff Positive (Between the cutoff and 50% above the cutoff concentration)	High Positive (greater than 50% above the cutoff concentration)	%Agreement with GC/MS (95%CI)
AMP (500)	Viewer A	+	0	0	2	30	10	100% (91.2% - 100%)
		-	10	17	11	0	0	95% (83.5% - 98.6%)
	Viewer B	+	0	0	1	30	10	100% (91.2% - 100%)
		-	10	17	12	0	0	97.5% (87.1% - 99.6%)
	Viewer C	+	0	0	2	30	10	100% (91.2% - 100%)
		-	10	17	11	0	0	95% (83.5% - 98.6%)
AMP (1000)	Viewer A	+	0	0	1	11	29	100% (84.5% - 100%)
		-	10	18	11	0	0	97.5% (82% - 100%)
	Viewer B	+	0	0	2	11	29	100% (84.5% -100%)
		-	10	18	10	0	0	95% (79.5% - 100%)
	Viewer C	+	0	0	2	11	29	100% (84.5% -100%)
		-	10	18	10	0	0	95% (79.5% - 100%)
BAR	Viewer A	+	0	0	2	20	20	100% (84.5% -100%)
		-	10	10	18	0	0	95% (79.5% - 100%)
	Viewer B	+	0	0	2	20	20	100% (84.5% -100%)
		-	10	10	18	0	0	95% (79.5% - 100%)

	Viewer C	+	0	0	2	20	20	100% (84.5% -100%)
		-	10	10	18	0	0	95% (79.5% - 100%)
BUP	Viewer A	+	0	0	1	16	24	100% (84.5% - 100%)
		-	10	18	11	0	0	97.5% (82% - 100%)
	Viewer B	+	0	0	1	16	24	100% (84.5% - 100%)
		-	10	18	11	0	0	97.5% (82% - 100%)
	Viewer C	+	0	0	2	16	24	100% (84.5% - 100%)
		-	10	18	10	0	0	95% (79.5% - 100%)
BZO	Viewer A	+	0	0	2	20	20	100% (84.5% -100%)
		-	10	10	18	0	0	95% (79.5% - 100%)
	Viewer B	+	0	0	2	20	20	100% (84.5% -100%)
		-	10	10	18	0	0	95% (79.5% - 100%)
	Viewer C	+	0	0	2	20	20	100% (84.5% -100%)
		-	10	10	18	0	0	95% (79.5% - 100%)
COC (150)	Viewer A	+	0	0	2	30	10	100% (91.2% - 100%)
		-	10	18	10	0	0	95% (83.5% - 98.6%)
	Viewer B	+	0	0	1	30	10	100% (91.2% - 100%)
		-	10	18	11	0	0	97.5% (87.1% - 99.6%)
	Viewer C	+	0	0	2	30	10	100% (91.2% - 100%)
		-	10	18	10	0	0	95% (83.5% - 98.6%)
COC (300)	Viewer A	+	0	0	2	11	29	100% (84.5% -100%)
		-	10	10	18	0	0	95% (79.5% - 100%)
	Viewer B	+	0	0	1	11	29	100% (84.5% - 100%)
		-	10	10	19	0	0	97.5% (82% - 100%)
	Viewer C	+	0	0	2	11	29	100% (84.5% - 100%)
		-	10	10	18	0	0	95% (79.5% - 100%)
FTY	Viewer A	+	0	0	1	18	22	100% (84.5% - 100%)
		-	10	12	17	0	0	97.5% (82% - 100%)
	Viewer B	+	0	0	1	18	22	100% (84.5% - 100%)
		-	10	12	17	0	0	97.5% (82% - 100%)
	Viewer C	+	0	0	1	18	22	100% (84.5% - 100%)
		-	10	12	17	0	0	97.5% (82% - 100%)
K2	Viewer A	+	0	0	1	18	22	100% (84.5% -100%)
		-	10	12	17	0	0	97.5% (82% - 100%)
	Viewer B	+	0	0	0	17	22	97.5% (82% - 100%)
		-	10	12	18	1	0	100% (84.5% - 100%)
	Viewer C	+	0	0	0	15	22	92.5% (77% - 100%)
		-	10	12	18	3	0	100% (84.5% - 100%)
MDMA	Viewer A	+	0	0	2	20	20	100% (84.5% - 100%)
		-	10	10	18	0	0	95% (79.5% - 100%)
	Viewer B	+	0	0	2	20	20	100% (84.5% - 100%)
		-	10	10	18	0	0	95% (79.5% - 100%)
	Viewer C	+	0	0	2	20	20	100% (84.5% - 100%)
		-	10	10	18	0	0	95% (79.5% - 100%)
MET (mAMP) (500)	Viewer A	+	0	0	2	20	20	100% (91.2% - 100%)
		-	10	15	13	0	0	95% (83.5% - 98.6%)
	Viewer B	+	0	0	2	20	20	100% (91.2% - 100%)
		-	10	15	13	0	0	95% (83.5% - 98.6%)
	Viewer C	+	0	0	2	20	20	100% (91.2% - 100%)
		-	10	15	13	0	0	95% (83.5% - 98.6%)
MET (mAMP) (1000)	Viewer A	+	0	0	1	20	20	100% (84.5% - 100%)
		-	10	16	13	0	0	97.5% (82% - 100%)
	Viewer B	+	0	0	2	20	20	100% (l84.5% - 100%)
		-	10	16	12	0	0	95% (79.5% - 100%)
	Viewer C	+	0	0	2	20	20	100% (84.5% - 100%)
		-	10	16	12	0	0	95% (79.5% - 100%)
MOP/OPI300	Viewer A	+	0	0	2	20	20	100% (84.5% - 100%)
		-	10	19	9	0	0	95% (79.5% - 100%)
	Viewer B	+	0	0	2	20	20	100% (84.5% - 100%)
		-	10	19	9	0	0	95% (79.5% - 100%)

	Viewer C	+	0	0	1	20	20	100% (84.5% - 100%)
		-	10	19	10	0	0	97.5% (82% - 100%)
MTD	Viewer A	+	0	0	1	19	21	100% (84.5% - 100%)
		-	10	12	17	0	0	97.5% (82% - 100%)
	Viewer B	+	0	0	2	19	21	100% (84.5% - 100%)
		-	10	12	16	0	0	95% (79.5% - 100%)
	Viewer C	+	0	0	1	19	21	100% (84.5% - 100%)
		-	10	12	17	0	0	97.5% (82% - 100%)
OPI	Viewer A	+	0	0	1	18	22	100% (84.5% - 100%)
		-	10	20	9	0	0	97.5% (82% - 100%)
	Viewer B	+	0	0	1	18	22	100% (84.5% - 100%)
		-	10	20	9	0	0	97.5% (82% - 100%)
	Viewer C	+	0	0	1	18	22	100% (84.5% - 100%)
		-	10	20	9	0	0	97.5% (82% - 100%)
OXY	Viewer A	+	0	0	1	19	21	100% (84.5% - 100%)
		-	10	20	9	0	0	97.5% (82% - 100%)
	Viewer B	+	0	0	1	19	21	100% (84.5% - 100%)
		-	10	20	9	0	0	97.5% (82% - 100%)
	Viewer C	+	0	0	1	19	21	100% (84.5% - 100%)
		-	10	20	9	0	0	97.5% (82% - 100%)
PPX	Viewer A	+	0	0	2	20	20	100% (84.5% -100%)
		-	10	10	18	0	0	95% (79.5% - 100%)
	Viewer B	+	0	0	2	20	20	100% (84.5% -100%)
		-	10	10	18	0	0	95% (79.5% - 100%)
	Viewer C	+	0	0	2	20	20	100% (84.5% -100%)
		-	10	10	18	0	0	95% (79.5% - 100%)
TCA	Viewer A	+	0	0	1	10	30	100% (84.5% - 100%)
		-	10	19	10	0	0	97.5% (82% - 100%)
	Viewer B	+	0	0	2	10	30	100% (84.5% - 100%)
		-	10	19	9	0	0	95% (79.5% - 100%)
	Viewer C	+	0	0	1	10	30	100% (84.5% - 100%)
		-	10	19	10	0	0	97.5% (82% - 100%)
THC	Viewer A	+	0	0	1	18	22	100% (84.5% - 100%)
		-	10	12	17	0	0	97.5% (82% - 100%)
	Viewer B	+	0	0	1	18	22	100% (84.5% - 100%)
		-	10	12	17	0	0	97.5% (82% - 100%)
	Viewer C	+	0	0	1	18	22	100% (84.5% - 100%)
		-	10	12	17	0	0	97.5% (82% - 100%)
TRA (100)	Viewer A	+	0	0	2	19	21	100% (84.5% - 100%)
		-	10	20	8	0	0	95% (79.5% - 100%)
	Viewer B	+	0	0	1	19	20	97.5% (84.5% - 100%)
		-	10	20	9	1	0	97.5% (79.5% - 100%)
	Viewer C	+	0	0	1	18	20	95% (84.5% - 100%)
		-	10	20	9	2	0	97.5% (82% - 100%)
TRA (200)	Viewer A	+	0	0	2	19	21	100% (84.5% - 100%)
		-	10	20	8	0	0	95% (79.5% - 100%)
	Viewer B	+	0	0	2	19	21	100% (84.5% - 100%)
		-	10	20	8	0	0	95% (79.5% - 100%)
	Viewer C	+	0	0	1	19	21	100% (84.5% - 100%)
		-	10	20	9	0	0	97.5% (82% - 100%)

Precision and Sensitivity

To investigate precision and sensitivity, each drug sample was analyzed at the following concentrations: cutoff - 100%, cutoff - 75%, cutoff - 50%, cutoff - 25%, cutoff, cutoff +25%, cutoff + 50%, cutoff + 75%and the cutoff + 100%. All concentrations were confirmed with GC-MS. The study was performed 2 runs /day and lasted 25 days using three different lots of the corresponding drug test. Totally 3 operators participated in the study of the corresponding drug test. Each of the 3 operators tested 2 aliquots at each concentration for each lot per day (2 runs/day), for a total of 50 determinations per concentration per lot of the corresponding UScreen Drug Test Cup.

Drug test	Approximate concentration of sample (ng/mL)	Number of determinations per lot	Results Negative/ Positive		
			Lot 1	Lot 2	Lot 3
AMP (500)	0	50	50/0	50/0	50/0
	125	50	50/0	50/0	50/0
	250	50	50/0	50/0	50/0
	375	50	50/0	50/0	50/0
	500	50	6/44	7/43	6/44
	625	50	0/50	0/50	0/50
	750	50	0/50	0/50	0/50
	875	50	0/50	0/50	0/50
	1000	50	0/50	0/50	0/50
AMP (1000)	0	50	50/0	50/0	50/0
	250	50	50/0	50/0	50/0
	500	50	50/0	50/0	50/0
	750	50	50/0	50/0	50/0
	1000	50	5/45	6/44	6/44
	1250	50	0/50	0/50	0/50
	1500	50	0/50	0/50	0/50
	1750	50	0/50	0/50	0/50
	2000	50	0/50	0/50	0/50
BAR	0	50	50/0	50/0	50/0
	75	50	50/0	50/0	50/0
	150	50	50/0	50/0	50/0
	225	50	50/0	50/0	50/0
	300	50	5/45	5/45	6/44
	375	50	0/50	0/50	0/50
	450	50	0/50	0/50	0/50
	525	50	0/50	0/50	0/50
	600	50	0/50	0/50	0/50
BUP	0	50	50/0	50/0	50/0
	2.5	50	50/0	50/0	50/0
	5.0	50	50/0	50/0	50/0
	7.5	50	50/0	50/0	50/0
	10.0	50	5/45	5/45	6/44
	12.5	50	0/50	0/50	0/50
	15.0	50	0/50	0/50	0/50
	17.5	50	0/50	0/50	0/50
	20.0	50	0/50	0/50	0/50
BZO	0	50	50/0	50/0	50/0
	75	50	50/0	50/0	50/0
	150	50	50/0	50/0	50/0
	225	50	50/0	50/0	50/0
	300	50	6/44	5/45	6/44
	375	50	0/50	0/50	0/50
	450	50	0/50	0/50	0/50
	525	50	0/50	0/50	0/50
	600	50	0/50	0/50	0/50
COC (150)	0	50	50/0	50/0	50/0
	37.5	50	50/0	50/0	50/0
	75	50	50/0	50/0	50/0
	112.5	50	50/0	50/0	50/0
	150	50	7/43	6/44	7/43
	187.5	50	0/50	0/50	0/50
	225	50	0/50	0/50	0/50
	262.5	50	0/50	0/50	0/50
	300	50	0/50	0/50	0/50
COC (300)	0	50	50/0	50/0	50/0
	75	50	50/0	50/0	50/0
	150	50	50/0	50/0	50/0
	225	50	50/0	50/0	50/0
	300	50	6/44	5/45	5/45
	375	50	0/50	0/50	0/50
	450	50	0/50	0/50	0/50
	525	50	0/50	0/50	0/50
	600	50	0/50	0/50	0/50
FTY	0	50	50/0	50/0	50/0
	5	50	50/0	50/0	50/0
	10	50	50/0	50/0	50/0
	15	50	50/0	50/0	50/0
	20	50	4/46	5/45	5/45
	25	50	0/50	0/50	0/50
	30	50	0/50	0/50	0/50
	35	50	0/50	0/50	0/50
	40	50	0/50	0/50	0/50
K2 JWH-018 Pentanoic Acid	0	50	50/0	50/0	50/0
	12.5	50	50/0	50/0	50/0
	25.0	50	50/0	50/0	50/0
	37.5	50	50/0	50/0	50/0
	50.0	50	5/45	6/44	5/45
	62.5	50	0/50	0/50	0/50
	75.0	50	0/50	0/50	0/50
	87.5	50	0/50	0/50	0/50
	100.0	50	0/50	0/50	0/50
K2 JWH-073 Butanoic Acid	0	50	50/0	50/0	50/0
	12.5	50	50/0	50/0	50/0
	25.0	50	50/0	50/0	50/0
	37.5	50	50/0	50/0	50/0
	50.0	50	5/45	6/44	5/45
	62.5	50	0/50	0/50	0/50
	75.0	50	0/50	0/50	0/50
	87.5	50	0/50	0/50	0/50
	100.0	50	0/50	0/50	0/50
MDMA	0	50	50/0	50/0	50/0
	125	50	50/0	50/0	50/0
	250	50	50/0	50/0	50/0
	375	50	50/0	50/0	50/0
	500	50	7/43	6/44	5/45
	625	50	0/50	0/50	0/50
	750	50	0/50	0/50	0/50
	875	50	0/50	0/50	0/50
	1000	50	0/50	0/50	0/50
MET (mAMP) (500)	0	50	50/0	50/0	50/0
	125	50	50/0	50/0	50/0
	250	50	50/0	50/0	50/0
	375	50	50/0	50/0	50/0
	500	50	5/45	4/46	4/46
	625	50	0/50	0/50	0/50
	750	50	0/50	0/50	0/50
	875	50	0/50	0/50	0/50
	1000	50	0/50	0/50	0/50
MET (mAMP) (1000)	0	50	50/0	50/0	50/0
	250	50	50/0	50/0	50/0
	500	50	50/0	50/0	50/0
	750	50	50/0	50/0	50/0
	1000	50	5/45	6/44	4/46
	1250	50	0/50	0/50	0/50
	1500	50	0/50	0/50	0/50
	1750	50	0/50	0/50	0/50
	2000	50	0/50	0/50	0/50
MOP/OPI300	0	50	50/0	50/0	50/0
	75	50	50/0	50/0	50/0
	150	50	50/0	50/0	50/0
	225	50	50/0	50/0	50/0
	300	50	7/43	5/45	6/44
	375	50	0/50	0/50	0/50
	450	50	0/50	0/50	0/50

	525	50	0/50	0/50	0/50
	600	50	0/50	0/50	0/50
MTD	0	50	50/0	50/0	50/0
	75	50	50/0	50/0	50/0
	150	50	50/0	50/0	50/0
	225	50	50/0	50/0	50/0
	300	50	5/45	7/43	5/45
	375	50	0/50	0/50	0/50
	450	50	0/50	0/50	0/50
	525	50	0/50	0/50	0/50
	600	50	0/50	0/50	0/50
OPI	0	50	50/0	50/0	50/0
	500	50	50/0	50/0	50/0
	1000	50	50/0	50/0	50/0
	1500	50	50/0	50/0	50/0
	2000	50	5/45	5/45	6/44
	2500	50	0/50	0/50	0/50
	3000	50	0/50	0/50	0/50
	3500	50	0/50	0/50	0/50
	4000	50	0/50	0/50	0/50
OXY	0	50	50/0	50/0	50/0
	25	50	50/0	50/0	50/0
	50	50	50/0	50/0	50/0
	75	50	50/0	50/0	50/0
	100	50	4/46	4/46	5/45
	125	50	0/50	0/50	0/50
	150	50	0/50	0/50	0/50
	175	50	0/50	0/50	0/50
	2000	50	0/50	0/50	0/50
PPX	0	50	50/0	50/0	50/0
	75	50	50/0	50/0	50/0
	150	50	50/0	50/0	50/0
	225	50	50/0	50/0	50/0
	300	50	6/44	5/45	5/45
	375	50	0/50	0/50	0/50
	450	50	0/50	0/50	0/50
	525	50	0/50	0/50	0/50
	600	50	0/50	0/50	0/50
TCA	0	50	50/0	50/0	50/0
	250	50	50/0	50/0	50/0
	500	50	50/0	50/0	50/0
	750	50	50/0	50/0	50/0
	1000	50	6/44	5/45	4/46
	1250	50	0/50	0/50	0/50
	1500	50	0/50	0/50	0/50
	1750	50	0/50	0/50	0/50
	2000	50	0/50	0/50	0/50
THC	0	50	50/0	50/0	50/0
	12.5	50	50/0	50/0	50/0
	25.0	50	50/0	50/0	50/0
	37.5	50	50/0	50/0	50/0
	50.0	50	4/46	4/46	5/45
	62.5	50	0/50	0/50	0/50
	75.0	50	0/50	0/50	0/50
	87.5	50	0/50	0/50	0/50
	100.0	50	0/50	0/50	0/50
TRA (100)	0	50	50/0	50/0	50/0
	25	50	50/0	50/0	50/0
	50	50	50/0	50/0	50/0
	75	50	48/2	49/1	47/3
	100	50	4/46	5/45	5/45
	125	50	1/49	4/46	3/47
	150	50	0/50	0/50	0/50
	175	50	0/50	0/50	0/50
	200	50	0/50	0/50	0/50
TRA (200)	0	50	50/0	50/0	50/0
	50	50	50/0	50/0	50/0
	100	50	50/0	50/0	50/0
	150	50	50/0	50/0	50/0
	200	50	4/46	6/44	5/45
	250	50	0/50	0/50	0/50
	300	50	0/50	0/50	0/50
	350	50	0/50	0/50	0/50
	400	50	0/50	0/50	0/50

Analytical Specificity

To test the specificity of the test, the test device was used to test various drugs, drug metabolites and other components that are likely to be present in urine. All the components were added to drug-free normal human urine. These concentrations (ng/mL) below also represent the limits of detection for the specified drugs or metabolites.

Item	Concentration (ng/mL)	Item	Concentration (ng/mL)
Amphetamine (AMP 500)		**Methylenedioxymethamphetamine (MDMA)**	
d-Amphetamine	500	3,4-Methylenedioxymethamphetamine HCl (MDMA)	500
d,l-Amphetamine	1,500	3,4-Methylenedioxyamphetamine HCl (MDA)	3,000
l-Amphetamine	25,000	3,4-Methylenedioxyethylamphetamine (MDEA)	300
(+/-) 3,4-methylenedioxyamphetamine (MDA)	2,500	**Methamphetamine (MET 500/mAMP 500)**	
Phentermine	1,500	D(+)-Methamphetamine	500
d-methamphetamine	>50,000	MDMA	10,000
l-methamphetamine	>50,000	MDEA	100,000
3,4-Methylenedioxyethylamphetamine(MDEA)	50,000	**Methamphetamine (MET 1000/mAMP 1000)**	
(+/-)3,4-methylenedioxumethamphetamine (MDMA)	50,000	D(+)-Methamphetamine	1,000
Amphetamine (AMP 1000)		D-Amphetamine	50,000
d-Amphetamine	1,000	Chloroquine	50,000
d,l-Amphetamine	3,000	(+/-)-Ephedrine	50,000
l-Amphetamine	50,000	(-)-Methamphetamine	25,000
(+/-) 3,4-methylenedioxyamphetamine (MDA)	5,000	(+/-)3,4-methylenedioxumethamphetamine (MDMA)	2,000
Phentermine	3,000	β-Phenylethylamine	50,000
d-methamphetamine	>100,000	Trimethobenzamide	10,000
l-methamphetamine	>100,000	**Opiates 300 (MOP/OPI 300)**	
3,4-Methylenedioxyethylamphetamine(MDEA)	100,000	Morphine	300
(+/-)3,4-methylenedioxumethamphetamine (MDMA)	100,000	Codeine	300
Barbiturates (BAR)		Ethyl Morphine	300
Secobarbital	300	Hydrocodone	5,000
Amobarbital	300	Hydromorphone	5,000
Alphenol	150	Morphine-3-β-d-glucuronide	1,000
Aprobarbital	200	Thebaine	30,000
Butabarbital	75	**Methadone (MTD)**	
Butathal	100	Methadone	300
Butalbital	2,500	Doxylamine	50,000
Cyclopentobarbital	600	**Opiates 2000 (OPI)**	
Pentobarbital	300	Morphine	2,000
Phenobarbital	10,000	Codeine	2,000
Buprenorphine (BUP)		Ethylmorphine	5,000
Buprenorphine	10	Hydrocodone	12,500

Buprenorphine -3-D-Glucuronide	15	Hydromorphine	5,000
Norbuprenorphine	20	Levorphanol	75,000
Norbuprenorphine 3-D-Glucuronide	200	σ-Monoacetylmorphine	5,000
Benzodiazepines (BZO)		Morphine 3-β-D-glucuronide	2,000
Oxazepam	300	Norcodeine	12,500
Alprazolam	200	Normorphone	50,000
a-Hydroxyalprazolam	1,500	Oxycodone	25,000
Bromazepam	1,500	Oxymorphine	25,000
Chlordiazepoxide	1,500	Procaine	150,000
Clonazepam HCl	800	Thebaine	100,000
Clobazam	100	**Oxycodone (OXY)**	
Clonazepam	800	Oxycodone	100
Clorazepatedipotassium	200	Dihydrocodeine	20,000
Delorazepam	1,500	Codeine	100,000
Desalkylflurazepam	400	Hydromorphone	100,000
Diazepam	200	Morphine	>100,000
Estazolam	2,500	Acetylmorphine	>100,000
Flunitrazepam	400	Buprenorphine	>100,000
D,L-Lorazepam	1,500	Ethylmorphine	>100,000
Midazolam	12,500	**Propoxyphene (PPX)**	
Nitrazepam	100	d-Propoxyphene	300
Norchlordiazepoxide	200	d-Norpropoxyphene	300
Nordiazepam	400	**Nortriptyline (TCA)**	
Temazepam	100	Nortriptyline	1,000
Triazolam	2,500	Nordoxepin	1,000
Cocaine (COC 150)		Trimipramine	3,000
Benzoylecgonine	150	Amitriptyline	1,500
Cocaine HCl	375	Promazine	1,500
Cocaethylene	6,250	Desipramine	200
Ecgonine	16,000	Imipramine	400
Cocaine (COC 300)		Clomipramine	12,500
Benzoylecgonine	300	Doxepin	2,000
Cocaine HCl	750	Maprotiline	2,000
Cocaethylene	12,500	Promethazine	25,000
Ecgonine	32,000	**Marijuana (THC)**	
Fentanyl (FTY)		11-nor-Δ9-THC-9-COOH	50
Norfentanyl	20	11-nor-Δ8-THC-9-COOH	30
Fentanyl	200	11-hydroxy-Δ9-Tetrahydrocannabinol	2,500
Synthetic Cannabinoids (K2)		Δ8- Tetrahydrocannabinol	7,500
JWH-018 Pentanoic Acid	50	Δ9- Tetrahydrocannabinol	10,000
JWH-073 Butanoic Acid	50	Cannabinol	100,000
JWH-018 N-4-hydroxypentyl	2,000	**Tramadol (TRA 100)**	
JWH-018 (Spice Cannabinoid)	1,000	Tramadol	100
JWH-018 4-Hydroxypentyl metabolite-D5 (indole-D5)	1,000	Venlafaxine hydrochloride	50,000
JWH-073 (Spice Cannabinoid)	2,000	**Tramadol (TRA 200)**	
JWH-073 3-Hydroxybutyl metabolite	1,000	Tramadol	200
JWH-073 3-Hydroxybutyl metabolite-D5 (indole-D5)	1,000	Venlafaxine hydrochloride	100,000
JWH-019 6-hydroxypentyl	1,000		
JWH-122 N-4-hydroxypentyl	2,000		
JWH-210 5-Hydroxypentyl metabolite	5,000		
AM2201 4-Hydroxypentyl metabolite	1,000		

Adulteration/Specimen Validity Test

OX: Bleach or other oxidizing agents react with an oxidant indicator to form a color complex. Observation of a blue-green, medium to dark brown, or orange color indicates adulteration with bleach or other oxidizing agents.

S.G.: The specific gravity test is based on the pKa change of certain pretreated polyelectrolytes in relation to the ionic concentration. The pad colors will change from dark blue to blue-green in urine of low ionic concentration to green and yellow-green in urine of higher ionic concentration. A urine specific gravity below 1.005 or above 1.025 is considered abnormal.

Cr: Creatinine reacts with a creatinine indicator in an alkaline medium to form a purplish-brown color complex if creatinine in the urine is present at the normal level. The color intensity is directly proportional to the concentration of creatinine. A urine sample with creatinine concentration of less than 20 mg/dL produces a very light, or no pad color change, which indicates adulteration in the from of specimen dilution.

pH: Normal urine pH ranges from 4.5 to 8.0. Values below pH 4.0 or above pH 9.0 are indicative of adulteration.

Ni.: Although nitrite is not a normal component of urine, nitrite levels of up to 3.6 mg/dl may be found in some urine specimens due to urinary tract infections, bacterial contamination or improper storage. In this adulteration control, nitrite level above 7.5 mg/dl is considered abnormal.

Cross-Reactivity

Considering the complexity of clinical urine specimens and the possibility that various urine specimens contain potentially interfering substances, we simulated the above situations by adding the potentially interfering substances at a certain concentration to the specimen. The following components show no cross-reactivity when tested with UScreen Drug Test Cup at a concentration of 100 μg/ml.

Non Crossing-Reacting Compounds

Acetominophen
Acetophenetidin
Acetylsalicylic Acid
Aminopyrine
Amoxicillin
Ampicillin
Apomorphine
Aspartame
Aspirin
Atropine
Benadryl
Benzilic Acid
Benzoic Acid
Benzoylecgonine **(except COC test)**
Bilirubin
Cannabidiol **(except THC, OXY tests)**
Captopril
Chloralhydrate
Chloramphenicol
Chlorothiazide
Chlorpromazine
Chlorquine
Cholesterol
Clarithromycin
Clonidine
Codeine **(except MOP/OPI300, OPI tests)**
(-) Cotinine
Cortisone
Creatinine
Deoxycorticosterone
Dextromethorphan
Diazepam **(except BZO test)**
Diclofenac
Diflunisal
Digoxin
Diphenhydramine
Dopamine HCl **(except AMP test)**
Doxepin **(except TCA test)**
Doxylamine **(except KET, MTD, TRA tests)**
Ecgonine Methyl Ester
β-Estradiol **(except BZO test)**
Ephedrine HCl **(except MET/mAMP test)**
Erythromycin **(except BZO test)**
Estrogen
Fenoprofen
Fentanyl Citrate **(except MDMA test)**
Furosemide
Gentisic Acid
Hydralazine **(except BZO test)**
Hydrochlorothiazide
Hydrocodone **(except BZO, MOP/OPI300, OPI, OXY tests)**
3-Hydroxytyramine
Hydrocortisone
I Caps
Ibuprofen **(except OXY test)**
Isoxsuprine
Ketamine **(except OXY test)**
Ketoprofen
Labetalol
Lamotrigine
Levonorgestrel
Lofexidine **(except OXY test)**
Loperamide **(except MTD test)**
Maprotiline **(except TCA, OXY tests)**
Meperidine
Meprobamate
Methadone **(except MTD test)**
Methamphetamine **(except MDMA, MET/mAMP, TCA tests)**
Methoxyphenamine **(except MDMA, MET/mAMP, TCA tests)**
Morphine-3-b-d-glucuronide **(except BZO, MOP, OPI tests)**
N-Acetylprocainamide **(except OXY test)**
Nalidixic acid
Noscapine
O-Hydroxyhippuric Acid
Omeprazole
Oxalic Acid
Oxazepam **(except BZO test)**
Oxolinic Acid
Oxycodone Acetaminophen **(except MOP/OPI300, OPI, OXY tests)**
Oxymetazoline
Papaverine
Penicillin V Potassium
Penicillin-G
Pentobarbital **(except BAR, OXY tests)**
Perphenazine
Pethidine HCl
Phenylephrine **(except MET/mAMP test)**
Phenelzine
Phenytoin **(except BAR test)**
Pholcodine **(except MOP/OPI300, OPI tests)**
Prednisone
Procaine **(except COC test)**
Propranolol HCl
Quinine
Ranitidine
Ranitidine HCl
Salicylic acid
Secobarbital **(except MET/mAMP, BAR tests)**
Serotonin (5- Hydroxytyramine)
Sinus&Allergy **(except BZO, MET/mAMP tests)**
Sulfamethazine
Sulindac
Tetrahydrocortisone3-(β-Dglucuronide) **(except AMP, BAR, OXY tests)**
Tetrahydrocortisone, 3-acetate **(except AMP, BAR, OXY tests)**
Tetrahydrozoline
Thiamine
Thioridazine
Triamterene

D L-Tryptophan **(except AMP, BAR tests)**	Naloxone	Trifluoperazine
D,L-Isoproterenol **(except AMP, BAR tests)**	Naltrexone	Trimethoprim
D,L-Octopamine	Naproxen	Tyramine **(except AMP, BAR tests)**
DL-Propranolol	Niacinamide	Uric Acid
DL-Tyrosine	Nifedipine	Venlafaxine HCl
D-Norpropoxyphene	Nitroglycerin	Verapamil
D-Propoxyphene **(except OXY test)**	Norcodein **(except MOP/OPI300, OPI, BZO, OXY tests)**	Zoloft
D-Pseudoephedrine	Norethindrone	Zomepirac

These results demonstrate that the UScreen Drug Test Cup will not produce positive results with urine samples containing these common substances.

Effect of Urinary Specific Gravity

5 urine samples with specific gravity between 1.000-1.035 were collected and spiked with each drug at 50% below and 50% above the cutoff level. The UScreen Drug Test Cup was tested in duplicate. The results demonstrated that varying ranges of urinary specific gravity do not affect the test result.

Effect of Urinary PH

The pH of an aliquot negative urine pool was adjusted to a pH range of 4 to 9 in 1 pH unit increments and spiked with morphine at 50% below and 50% above cutoff levels. The UScreen Drug Test Cup was tested in duplicate. The results demonstrated that varying ranges of pH do not interfere with the performance of the test.

BIBLIOGRAPHY OF SUGGESTED READING

1. Baselt, R.C. Disposition of Toxic Drugs and Chemicals in Man. Biomedical Publications, Davis, CA, 1982.
2. Ellenhorn, M.J. and Barceloux, D. G Medical Toxicology. Elservier Science Publishing Company, Inc., New York, 1988

3. Gilman, A. G., and Goodman, L. S. The Pharmacological Fluids, in Martin WR(ed): Drug Addiction I, New York, Spring – Verlag, 1977.
4. Harvey, R.A., Champe, P.C. Lippincotts Illustrated Reviews. Pharmacology. 91-95, 1992.
5. Hawwks RL, CN Chiang. Urine Testing for drugs of Abuse. National Institute for Drug Abuse (NIDA), Research Monography 73, 1986
6. Hofmann F.E., A Handbook on Drug and Alcohol Abuse: The Biomedical Aspects, New York, Oxford University Press, 1983.
   McBay, A. J. Clin. Chem. 33,33B-40B, 1987.

MEANING OF SYMBOLS ON PACKAGE


Keep away from sunlight

Store between 4ºC - 30ºC (40ºF - 86ºF)


Keep dry


Do not re-use

In vitro diagnostic use

Distributed by:
Blue Grass Drug Screen, Inc.
Toll Free 1-866-323-7336
Alere Toxicology Services
Portsmouth, VA 23704 USA

Rev.A4
Rel.: 2018/04/27