Multi-drug Urine Test Cup

REF MD-U61-006	REF MD-U62-006	REF MD-U63-006	REF MD-U64-006	REF MD-U65-006
REF MD-U66-006	REF MD-U67-006	REF MD-U68-006	REF MD-U69-006	REF MD-U610-006
REF MD-U611-006	REF MD-U612-006	REF MD-U613-006	REF MD-U614-006	REF MD-U615-006
REF MD-U616-006	REF MD-U617-006	REF MD-U618-006	REF MD-U619-006	REF MD-U620-006
REF MD-U621-006	REF MD-U622-006	REF MD-U623-006	REF MD-U624-006	REF MD-U625-006
REF MD-U626-006				

For professional *in vitro* use only

INTENDED USE

The Multi-drug Urine Test Cup is a rapid visual immunoassay for the qualitative, presumptive detection of any combination of drugs of abuse in human urine specimens at the cutoff concentrations listed below:

Test	Calibrator	Cut off (ng/mL)
ACE	Acetaminophen	5000
AMP	d-Amphetamine	1000/500
BAR	Secobarbital	300
BUP	BUP-3-D-Glucuronide	10/5
BZO	Oxazepam	300/200
COC	Benzoylecgonine	300/200/150
COT	(-)-Cotinine	300
EDDP	2-Ethylidine-1,5-dimethyl-3,3-diphenylpyrr olidine	100
ETG	Ethyl Glucuronide	500
K2	JWH-073/JWH-018	50
K3	AB- PINACA	25
KET	Ketamine	1000
6-MAM	6-Monoacetylmorphine	10
MDMA	3,4-Methylenediioxy-MET	500
MET	Methamphetamine	1000/500
MOR	Morphine	300/200
MTD	Methadone	300
OPI	Morphine	2000
OXY	Oxycodone	100
PCP	Phencyclidine	25
PGB	Pregabalin	500
PPX	D-Propoxyphene	300
TCA	Nortriptyline	300
THC	11-nor-Δ^9-THC-9-COOH	50
TML	Tramadol	100
7-ACL	7-Aminoclonazepam	200

The Multi-drug Urine Test Cup can also come with the adulteration strips listed below:

Adulteration（StripA）	Oxidants / Specific Gravity / pH
Adulteration（StripB）	Nitrite / Glutaraldehyde / Creatinine

PRINCIPLE

The Multi-drug Urine Test Cup is an immunoassay based on the principle of competitive binding. Drugs that may be present in the urine specimen compete against their respective drug conjugate for binding sites on their specific antibody.

During testing, a portion of the urine specimen migrates upward by capillary action. If present in the urine specimen below its cutoff concentration, a drug 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 appear in the test line region of the corresponding drug strip. The presence of a drug above the cutoff concentration in the urine specimen will saturate all the binding sites of the antibody. Therefore, no colored line will form in the test line region.

A drug-positive urine specimen will not generate a colored line in the specific test line region of the strip because of drug competition, while a drug-negative urine specimen will generate a line in the test line region because of the absence of drug competition. To serve as a procedural control, a colored line will always appear at the control line region, indicating that a proper specimen volume has been added and membrane wicking has occurred.

Adulteration is the tampering of a urine specimen with the intention of altering the test results. The use of adulterants can cause false-negative results in drug tests by either interfering with the screening test and/or destroying the drugs present in the urine. Dilution may also be employed in an attempt to produce false-negative drug test results.

One of the best ways to test for adulteration or dilution is to determine certain urinary characteristics such asCreatinine, pH, and Specific Gravity and detect the presence of Glutaraldehyde, Nitrite, and Oxidants/Pyridinium Chlorochromate in urine.

Creatinine (CRE): Tests for specimen dilution. Creatinine is a waste product of Creatine and is an aminoacid contained in muscle tissue and found in urine.[1] A person may attempt to foil a drug test by drinking excessive amounts of water or diuretics such as herbal teas to flush the system. Creatinine and Specific Gravity are two ways to check for dilution and flushing, which are the most common mechanisms used to circumvent drug testing. Low Creatinine and Specific Gravity levels may indicate diluted urine. The absence of Creatinine (<5 mg/dL) is indicative of a specimen not consistent with human urine.

Nitrite (NIT): Tests for commonly used commercial adulterants. They work by oxidizing the major cannabinoid metabolite THC-COOH.[2] Normal urine should contain no trace of Nitrites. Positive results generally indicate the presence of an adulterant.

Glutaraldehyde (GLUT): Tests for the presence of aldehydes. Adulterants can contain Glutaraldehyde and cause false-negative screening results by disrupting the enzyme used in some immunoassay tests. [3] Glutaraldehyde is not normally found in urine; therefore, detecting Glutaraldehyde in a urine specimen generally indicates adulteration.

pH: Tests for the presence of acidic or alkaline adulterants in urine. Normal pH levels should be in the range of 4.0 to 9.0. Values outside of this range may indicate that the specimen has been altered.

Specific Gravity (SG): Tests for specimen dilution. The normal range is from 1.003 to 1.030. Values outside this range may be the result of specimen dilution or adulteration.

Oxidants/Pyridinium Chlorochromate (OXI/PCC): Tests for the presence of oxidizing reagents such as bleach and hydrogen peroxide. Pyridinium Chlorochromate is a commonly used adulterant. [3]Normal human urine should not contain Oxidants or PCC.

MATERIALS

Materials Provided

- Individually packed test cups with integrated drug of abuse test panels
- Caps
- Adulteration Color Chart (when applicable)
- Package insert

Materials Required but Not Provided

- Timer
- Centrifuge
- Positive and negative controls

PRECAUTIONS

- For professional *in vitro* use only.
- Do not use after the expiration date indicated on the package. Do not use the test if the foil pouch is damaged. Do not reuse tests.
- This kit contains products of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not completely guarantee the absence of transmissible pathogenic agents. It is, therefore, recommended that these products be treated as potentially infectious and handled by observing usual safety precautions (e.g., do not ingest or inhale).
- Avoid cross-contamination of specimens by using a new specimen collection container for each specimen obtained.
- Read the entire procedure carefully prior to testing.
- Do not eat, drink, or smoke in the area where specimens and kits are handled. Handle all specimens as if they contain infectious agents. Observe established precautions against microbiological hazards throughout the procedure and follow standard procedures for the proper disposal of specimens. Wear protective clothing such as laboratory coats, disposable gloves, and eye protection when specimens are assayed.
- Humidity and temperature can adversely affect results.
- Used testing materials should be discarded in accordance with local regulations.

STORAGE AND STABILITY

- The kit should be stored at 2-30 ℃ until the expiry date printed on the sealed pouch.
- The test must remain in the sealed pouch until use.
- Do not freeze.
- Kits should be kept out of direct sunlight.
- Care should be taken to protect the components of the kit from contamination. Do not use if there is evidence of microbial contamination or precipitation. Biological contamination of dispensing equipment, containers, or reagents can lead to false results.

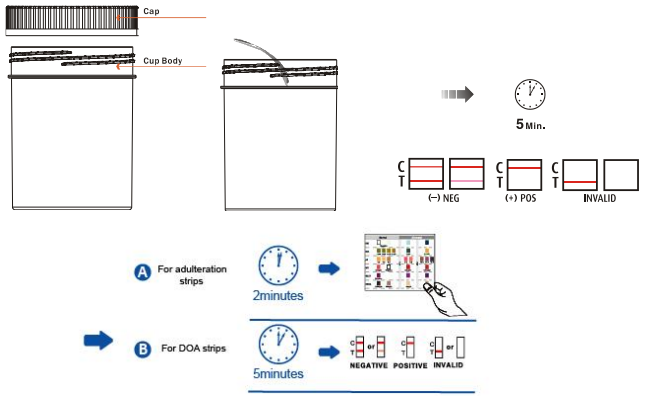
SPECIMEN COLLECTION AND STORAGE

- The Multi-drug Urine Test Cup is intended for use with human urine specimens only.
- Urine collected at any time of the day may be used.
- Urine specimens must be collected in clean, dry containers.
- Turbid specimens should be centrifuged, filtered, or allowed to settle, and only the clear supernatant should be used for testing.
- Perform testing immediately after specimen collection. Do not leave specimens at room temperature for prolonged periods. Urine specimens may be stored at 2-8 ℃ for up to 2 days. For long-term storage, specimens should be kept below -20 ℃.
- Bring specimens to room temperature prior to testing. Frozen specimens must be completely thawed and mixed well prior to testing. Avoid repeated freezing and thawing of specimens.
- If specimens are to be shipped, pack them in compliance with all applicable regulations for the transportation of etiological agents.

PROCEDURE

Bring tests, stored specimens, and/or controls to room temperature (15-30 ℃) before use.

1. Remove the cup from its sealed pouch and use it as soon as possible.
2. Donor provides a urine specimen in the cup and screws the cap on to the cup. Start the timer.
3. Donor dates and initials the security seal label. Operator checks the cap for tightness and attaches the security seal label over the cap.
4. Remove the peel-off label.
5. Check the temperature strip label at 2-4 minutes after specimen collection. A green color will appear to indicate the temperature of the urine specimen. The proper range for an unadulterated specimen is 90-100 ℉ (32-38 ℃).
6. Drug test results are indicated by the presence or absence of colored band(s) in the result area. The result should be read at 5 minutes. Do not interpret the result after 10 minutes.
7. Positive test results must be confirmed by another test method. Send the cup and urine specimen intact to a toxicology laboratory for confirmation.
8. For the adulteration, compared with the color card, and the results should be read at 2 minutes , do not interpret the result after 5 minutes.



INTERPRETATION OF RESULTS

(See the previous illustration)

POSITIVE: Only one colored band appears in the control region (C). No colored band appears in the test region (T) for the drug in question. A positive result indicates that the drug concentration exceeds the detectable level.

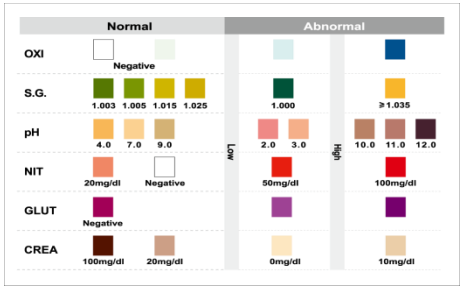
NEGATIVE: Two colored bands appear on the membrane. One band appears in the control region (C), and another band appears in the test region (T) for the drug in question. A negative result indicates that the drug concentration is below the detectable level.

INVALID: Control band fails to appear. Any test that has not produced a control band at the specified read time must be discarded. Please review the procedure and repeat it with a new test. If the problem persists, discontinue using the kit immediately and contact your local distributor.

NOTE:

1. The intensity of color in the test region (T) may vary depending on the concentration of analytes present in the specimen. Therefore, any shade of color in the test region (T) should be considered negative. Please note that this is a qualitative test only and cannot determine the concentration of analytes in the specimen.
2. Insufficient specimen volume, incorrect operating procedure, or expired tests are the most likely reasons for control band failure.

The Result Of Adulteration Strips:



NOTE:

The Urine Adulteration Test Strips (Urine) are meant to aid in the determination of abnormal specimens. While comprehensive, these tests are not meant to be an all-inclusive representation of possible adulterants.

Creatinine: Normal Creatinine levels are between 20 and 350 mg/dL. Under rare conditions, certain kidney diseases show diluted urine.

Nitrite: Nitrite is not a normal component of human urine. However, Nitrite found in urine may indicate urinary tract infections or bacterial infections. Nitrite levels of >20 mg/dL may produce false-positive Glutaraldehyde results.

Glutaraldehyde: Glutaraldehyde is not normally found in urine. However, certain metabolic abnormalities such as ketoacidosis (fasting, uncontrolled diabetes, or high-protein diets) may interfere

with the test results.
Specific Gravity: Elevated levels of protein in the urine may cause abnormally high Specific Gravity values.
Oxidants/PCC: Normal human urine should not contain Oxidants or PCC. The presence of high levels of antioxidants in the specimen, such as ascorbic acid, may result in false-negative results for the Oxidants/PCC pad.

QUALITY CONTROL

The Quality Control Of DOA:

- Internal procedural controls are included in the test. A colored band appearing in the control region (C) is considered an internal positive procedural control, confirming sufficient specimen volume and correct procedural technique.
- External controls are not supplied with this kit. It is recommended that positive and negative controls be tested as a good laboratory practice to confirm the test procedure and verify proper test performance.

The Quality Control Of Adulteration Strips:
Control standards are not supplied with this kit. However, it is recommended that positive and negative specimens or controls be tested as a good laboratory practice to confirm the test procedure and verify proper test performance.

LIMITATIONS OF THE TEST

1. The Multi-drug Urine Test Cup is for forensic use and should only be used for the qualitative detection of drugs of abuse.
2. This assay only provides a preliminary analytical test result. A more specific alternative chemical method must be used to obtain a confirmed analytical result. Gas chromatography/mass spectrometry (GC/MS) has been established as the preferred confirmatory method by the National Institute on Drug Abuse (NIDA). Clinical consideration and forensic judgment should be applied to any test result, particularly when preliminary positive results are indicated.
3. There is a possibility that technical or procedural errors and other substances or factors may interfere with the test and cause false results.
4. In urine specimens, adulterants, such as bleach and/or alum, may produce erroneous results regardless of the analytical method used. Therefore, please preclude the possibility of urine adulteration prior to testing.
5. A positive result only indicates the presence of a drug/metabolite and does not indicate or measure intoxication.
6. A negative result does not at any time rule out the presence of drugs/metabolites in urine, as they may be present below the minimum detection level of the test.
7. This test does not distinguish between drugs of abuse and certain medications.

The Limitations Of Adulteration Strips:
The Urine Adulteration Test Strips (Urine) are meant to aid in the determination of abnormal specimens. While comprehensive, these tests are not meant to be an all-inclusive representation of possible adulterants.
1.Creatinine: Normal Creatinine levels are between 20 and 350 mg/dL. Under rare conditions, certain kidney diseases show diluted urine.
2.Nitrite: Nitrite is not a normal component of human urine. However, Nitrite found in urine may indicate urinary tract infections or bacterial infections. Nitrite levels of >20 mg/dL may produce false-positive Glutaraldehyde results.
3.Glutaraldehyde: Glutaraldehyde is not normally found in urine. However, certain metabolic abnormalities such as ketoacidosis (fasting, uncontrolled diabetes, or high-protein diets) may interfere with the test results.
4.Specific Gravity: Elevated levels of protein in the urine may cause abnormally high Specific Gravity values.
5.**Oxidants/PCC:**Normal human urine should not contain Oxidants or PCC. The presence of high levels of antioxidants in the specimen, such as ascorbic acid, may result in false-negative results for the Oxidants/PCC pad.

PERFORMANCE CHARACTERISTICS

A. Accuracy
The accuracy of the Multi-drug Urine Test Cup was established by running urine samples against GC/MS.

Specimen	ACE5000	AMP1000	AMP500	BAR300	BUP10	BUP5	BZO300	BZO200
Positive	96.10%	95.80%	95.90%	97.80%	100.00%	100.00%	95.30%	97.40%
Negative	100.00%	100.00%	100.00%	98.10%	100.00%	100.00%	92.90%	98.20%
Total	98.10%	98.10%	98.10%	98.00%	100.00%	100.00%	93.90%	97.90%

Specimen	COC300	COC200	COC150	COT300	EDDP100	ETG500	K2 50	K3 25
Positive	98.20%	95.70%	96.36%	97.90%	95.80%	98.21%	98.90%	97.87%
Negative	98.10%	98.10%	96.61%	98.10%	100.00%	100.00%	100.00%	98.33%
Total	98.20%	97.00%	96.49%	98.00%	98.10%	99.04%	99.00%	98.13%

Specimen	KET1000	MDMA500	MET1000	MET500	MOR300	MOR200	6-MAM10	MTD300
Positive	98.00%	100.00%	96.80%	96.90%	96.80%	96.10%	96.80%	96.10%
Negative	98.60%	100.00%	100.00%	100.00%	97.90%	100.00%	100.00%	100.00%
Total	98.30%	100.00%	98.30%	98.30%	97.30%	98.10%	98.20%	98.10%

Specimen	OPI2000	OXY100	PCP25	PGB500	PPX300	TCA1000	THC50	TML100
Positive	97.60%	96.10%	97.80%	97.92%	97.80%	100.00%	96.80%	98.40%
Negative	98.40%	100.00%	100.00%	98.11%	100.00%	100.00%	98.30%	100.00%
Total	98.10%	98.10%	98.90%	98.02%	99.00%	100.00%	97.50%	99.10%

Specimen	7-ACL200
Positive	97.87%
Negative	98.33%
Total	98.13%

B. Sensitivity

The sensitivity of the Multi-drug Urine Test Cup was determined by testing GC/MS confirmed controls at negative, -50% cutoff, -25% cutoff, cutoff, +25% cutoff, +50% cutoff, and three times cutoff concentrations. The results are summarized below:

Drug Conc.	n	ACE5000		AMP1000		AMP500		BAR300		BUP10		BUP5		BZO300		BZO200	
(Cut-off)		-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+
Negative	50	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0
50% Cut-off	50	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0
75% Cutoff	50	33	17	36	14	37	13	39	11	37	13	39	11	41	9	40	10
Cutoff	50	8	42	9	41	10	40	9	41	12	38	11	39	15	35	16	34
125% Cutoff	50	5	45	3	47	6	44	7	43	6	44	5	45	3	47	5	45
150% Cutoff	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50
3╳Cutoff	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50

Drug Conc.	n	COC300		COC200		COC150		COT300		EDDP100		ETG500		K2 50		K3 25	
(Cut-off)		-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+
Negative	50	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0
50% Cut-off	50	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0
75% Cutoff	50	38	12	37	13	39	11	36	14	37	13	41	9	37	13	48	2
Cutoff	50	13	37	12	38	15	35	13	37	17	33	13	37	14	36	13	37
125% Cutoff	50	4	46	3	47	6	44	3	47	8	42	8	42	9	41	6	44
150% Cutoff	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50
3╳Cutoff	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50

Drug Conc.	n	KET1000		MDMA500		MET1000		MET500		MOR300		MOR200		6-MAM10		MTD300	
(Cut-off)		-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+
Negative	50	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0
50% Cut-off	50	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0
75% Cutoff	50	40	10	33	17	37	13	39	11	43	7	41	9	40	10	42	8
Cutoff	50	14	36	12	38	12	38	11	39	20	30	16	34	11	39	15	35
125% Cutoff	50	7	43	9	41	6	44	5	45	3	47	4	46	5	45	5	45
150% Cutoff	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50
3╳Cutoff	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50

Drug Conc.	n	OPI2000		OXY100		PCP25		PGB500		PPX300		TCA300		THC50		TML100	
(Cut-off)		-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+
Negative	50	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0
50% Cut-off	50	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0
75% Cutoff	50	35	15	40	10	41	9	38	12	42	8	40	10	41	9	41	9
Cutoff	50	10	40	10	40	7	43	10	40	12	38	13	37	17	33	11	39
125% Cutoff	50	4	46	4	46	3	47	5	45	3	47	9	41	3	47	3	47
150% Cutoff	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50
3╳Cutoff	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50	0	50

Drug Conc.	n	7-ACL200	
(Cut-off)		-	+
Negative	50	50	0
50% Cut-off	50	50	0
75% Cutoff	50	35	15
Cutoff	50	12	38
125% Cutoff	50	7	43
150% Cutoff	50	0	50
3╳Cutoff	50	0	50

C. Specificity

The following tables list the concentrations of compounds (ng/mL) above which the Multi-drug Urine Test Cup identified positive results at 5 minutes.

6-MAM 10-related compounds			
6-Monoacetylmorphine	10	Hydrocodone	>10,000
Acetylcodeine	>10,000	Hydromorphone	>100,000
Buprenorphine	>10,000	Morphine	100,000
Codeine	5000	Morphine-3-glucuronide	>10,000
Diacetylmorphine	1,000	Nalorphine	>50,000
Dihydrocodeine	>10,000	Thebaine	>20,000
Ethylmorphine	>10,000		
7-ACL 200-related compounds			
7-amine-clonazepam	200	Diazepam	>10,000
Oxazepam	>10,000	Estazolam	>10,000
Alprazolam	>10,000	Flunitrazepam	>50,000
Bromazepam	>10,000	(±) Lorazepam	6,000
Chlordiazepoxide	>10,000	Midazolam	>100,000
Clobazam	>10,000	Nitrazepam	>10,000
Clonazepam	6,000	Norchlordiazepoxide	>100,000
Clorazepate dipotassium	>10,000	Nordiazepam	>100,000
Desalkylflurazepam	>10,000		
ACE 5000-related compounds			
Acetaminophen	5,000	Acetophenetidine	7,500
AMP 1000-related compounds			
d-Amphetamine	1,000	3,4-Methylenedioxy-methamphetamine	>100,000
l-Amphetamine	>100,000	3,4-Methylenedioxyethylamphetamine	>100,000
d-methamphetamine	>100,000	Paramethoxyamphetamine	625
l-methamphetamine	>100,000	Phentermine	1,250
3,4-Methylenedioxyamphetamine	1,250	Tyramine	>100,000
AMP 500-related compounds			
d-Amphetamine	500	Phentermine	1,250
l-Amphetamine	50,000	Paramethoxyamphetamine	625
3,4-Methylenedioxyamphetamine	625	Tyramine	>100,000
BAR 300-related compounds			
Secobarbital	300	Butalbital	2,500
Allobarbital	1,250	Butethal	200
Alphenal	625	Cyclopentobarbital	400
Amobarbital	625	Pentobarbital	1,000
Aprobarbital	188	Phenobarbital	300
Butabarbital	94		
BUP 10-related compounds			
Buprenorphine	10	Norbuprenorphine	50
Buprenorphine–3–β–D–Glucuronide	10	Norbuprenorphine–3–β–D–Glucuronide	100
BUP 5-related compounds			
Buprenorphine	5	Norbuprenorphine	25
Buprenorphine–3–β–D–Glucuronide	5	Norbuprenorphine–3–β–D–Glucuronide	50
BZO 300-related compounds			
Oxazepam	300	Flurazepam	>100,000
Alprazolam	125	Lorazepam	1,250
Bromazepam	625	Lormetazepam	1,250
Chlordiazepoxide	2,500	Medazepam	>100,000
Clobazam	63	Midazolam	>100,000
Clonazepam	2,500	Nitrazepam	25,000
Clorazepate	3,330	Norchlordiazepoxide	250
Desalkflurazepam	250	Nordiazepam	500
Diazepam	250	Prazepam	>100,000
Estazolam	5,000	Temazepam	63
Fentanyl	>100,000	Triazolam	5,000
Flunitrazepam	375		
BZO 200-related compounds			
Oxazepam	200	Flurazepam	>100,000
Alprazolam	83	Lorazepam	833
Bromazepam	417	Lormetazepam	833

Chlordiazepoxide	1,667	Medazepam	>100,000
Clobazam	42	Midazolam	>100,000
Clonazepam	1,667	Nitrazepam	16,667
Clorazepate	2,220	Norchlordiazepoxide	167
Desalkflurazepam	167	Nordiazepam	333
Diazepam	167	Prazepam	>100,000
Estazolam	3,333	Temazepam	42
Fentanyl	>100,000	Triazolam	3,333
Flunitrazepam	250		
COC 300-related compounds			
Benzoylecgonine	300	Ecgonine	100,000
Cocaine	1,000	Ecgonine Methyl Ester	>100,000
COC 200-related compounds			
Benzoylecgonine	200	Ecgonine	5,000
Cocaine	125	Ecgonine Methyl Ester	>100,000
COC 150-related compounds			
Benzoylecgonine	150	Ecgonine	10,000
Cocaine	125	Ecgonine Methyl Ester	>10000
COT 300-related compounds			
(-)-Cotinine	300	(-)-Nicotine	9,375
EDDP 100-related compounds			
EDDP	100	Promazine	50,000
Meperidine	>100,000	Promethazine	25,000
Methadone	>100,000	Prothipendyl	50,000
Norfentanyl	>100,000	Prozine	12,500
Phencyclidine	>100,000		
ETG 500-related compounds			
Ethyl Glucuronide	500	D-Glucuronic Acid	>100,000
Ethanol	>100,000	Morphine-3-b-D-glucuronide	>100,000
K2 50 related compounds			
JWH-018-5-Pentanoic acid	50	JWH-073-4-Butanoic acid	50
K3 25-related compounds			
AB- PINACA	25	UR-144 5-hydroxypentyl	>10,000
AB-PINACA 5-Pentanoic	25	UR-144 4-hydroxypentyl	>10,000
AB-PINACA 5-hydroxypentyl	25	APINACA	>10,000
AB- FUBINACA	40	APINACA 5-hydroxypentyl	>10,000
AB-PINACA 4-hydroxypentyl	>10,000	ADB-PINACA N-(5-hydroxypentyl)	50
UR-144 5-Pentanoic	5,000	ADB-PINACA Pentanoic Acid	25
UR-144	>10,000	5-fluoro AB-PINACAN-(4-hydroxypentyl)	50
KET 1000-related compounds			
Ketamine	1,000	Methadone	12,500
Norketamine	1,000	D-Methamphetamine	12,500
Dextromethorphan	>100,000	3,4-Methylenedioxyethylamphetamin	25,000
Dextrorphan tartrate	>100,000	Nordoxepin hydrochloride	25,000
D-Norpropoxyphene	31,250	Phencyclidine	5,000
EDDP	>100,000	Promazine	8,000
Meperidine	12,500	Promethazine	25,000
Mephenterminehemisulfate salt	50,000		
MDMA 500-related compounds			
3,4-Methylenedioxy-methamphetamine	500	3,4-Methylenedioxyamphetamine	2,500
d-Amphetamine	>100,000	3,4-Methylenedioxyethylamphetamine	156
l-Amphetamine	>100,000	Paramethoxyamphetamine	50,000
d-methamphetamine	>100,000	Paramethoxymethamphetamine	>100,000
l-methamphetamine	>100,000		
MET 1000-related compounds			
d-Methamphetamine	1,000	3,4-Methylenedioxyethylamphetamine	50,000
Chloroquine	25,000	3,4-Methylenedioxy-methamphetamine	313
Fenfluramine	12,500	Paramethoxymethamphetamine	625
l-Methamphetamine	10,000	(-)-Ephedrine	4,000
Mephenterminehemisulfate salt	31,250		

MET 500-related compounds			
d-Methamphetamine	500	MDEA	12,500
Chloroquine	12,500	MDMA	1,875
Fenfluramine	12,500	PMMA	625
l-Methamphetamine	3,125	(-)-Ephedrine	2,000
Mephenterminehemisulfate salt	25,000		
MOR 300-related compounds			
Morphine	300	Hydrocodone	12,500
Acetylcodeine	150	Hydromorphone	12,500
Buprenorphine	>10,000	6-Monoacetylmorphine	250
Codeine	250	Morphine-3-glucuronid	2,500
Diacetyl Morphin	250	Nalorphine	25,000
Dihydrocodeine	586	Thebaine	25,000
Ethylmorphine	200		
MOR 200-related compounds			
Morphine	200	Hydrocodone	8,350
Acetylcodeine	100	Hydromorphone	8,350
Buprenorphine	2,000	6-Monoacetylmorphine	170
Codeine	170	Morphine-3-glucuronid	1,670
Diacetyl Morphin	168	Nalorphine	16,666
Dihydrocodeine	395	Thebaine	16,666
Ethylmorphine	135		
MTD 300-related compounds			
Methadone	300	(-)-alpha-methadol	2,000
OPI 2000-related compounds			
Morphine	2,000	Merperidine	>100,000
Acetylcodeine	1,563	6-Monoacetylmorphine (6-MAM)	4,000
Buprenorphine	25,000	Morphine-3-β-d-glucuronide	12,500
Codeine	2,000	Nalorphine Hydrochloride	>100,000
Diacetylmorphine (Heroin)	5,000	Oxycodone	>100,000
Dihydrocodeine	1,563	Oxymorphone	>100,000
Ethylmorphine	250	Rifampicine	>100,000
Hydromorphone	25,000	Thebaine	50,000
Hydrocodone	50,000		
OXY 100-related compounds			
Oxycodone	100	Naloxone	50,000
Hydrocodone	6,250	Oxymorphone	250
Hydromorphone	50,000		
PCP 25-related compounds			
Phencyclidine	25	Hydromorphone	>100,000
Hydrocodone	>100,000	4-hydroxyphencyclidine	75
PGB 500-related compounds			
Pregabalin	500	Gabapentin	>20,000
PPX 300-related compounds			
D-Propoxyphene	300	D-Norpropoxyphene	5,000
TCA 300-related compounds			
Nortriptyline	300	Nordoxepin	300
Amitriptyline	1,000	Opipramol	750
Clomipramine	100,000	Promethazine	3,000
Cyclobenzaprine	8,000	Prothipendyl	15,000
Desipramine	100	Protryptyline	3,000
Doxepin	750	Prozine	500
Imipramine	1,000	Trimipramine	100,000
Maprotiline	300		
THC 50-related compounds			
11-nor-Δ9-THC-9-COOH	50	Δ9-Tetrahydrocannabinol	15,000
11-nor-Δ8-THC-9-COOH	50	Cannabinol	20,000
11-hydroxy-Δ9-Tetrahydrocannabinol	50	Cannabidiol	>100,000
Δ8-Tetrahydrocannabinol	15,000		
TML 100-related compounds			
Tramadol	100	Diphenhydramine	50,000
(+/-)Chlorpheniramine	50,000	Phencyclidine	50,000
Dimenhydrinate	50,000	(+)-Chlorpheniramine	>100,000

A study was conducted to determine the cross-reactivity of the test with compounds spiked into drug-free PBS stock. The following compounds demonstrated no false-positive results on the Multi-drug Urine Test Cup when tested at concentrations up to 100 μg/mL.

(-)-Ephedrine (Except MET)	Chlorpheniramine	Oxalic Acid
(+)-Naproxen	Creatine	Penicillin-G
(+/-)-Ephedrine (Except MET)	Dextromethorphan	Pheniramine
4-Dimethyllaminoantiyrine	Dextrorphan tartrate	Phenothiazine
Acetaminophen	Dopamine	Procaine
Acetone	Erythromycin	Protonix
Albumin	Ethanol	Pseudoephedrine
Amitriptyline (Except TCA)	Furosemide	Quinidine
Ampicillin	Glucose	Ranitidine
Aspartame	Guaiacol Glyceryl Ether	Sertraline
Aspirin	Hemoglobin	Tyramine
Benzocaine	Ibuprofen	Vitamin C (Ascorbic Acid)
Bilirubin	Imipramine (Except TCA)	Trimeprazine
b-Phenylethyl-amine	Isoproterenol	Venlafaxine
Caffeine	Lidocaine	Ibuprofen
Chloroquine	Methadone (Except MTD)	

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GLOSSARY OF SYMBOL

REF	Catalog number		Temperature limitation
	Consult instructions for use	LOT	Batch code
IVD	In vitro diagnostic medical device		Use by
	Manufacturer		Contains sufficient for <n> tests
	Do not reuse	EC REP	Authorized representative in the European Community
CE	CE marking according to IVD Medical Devices Directive 98/79/EC		

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