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Product Instructions

INTENDED USE

Rapid TOX Cup® II is an in vitro diagnostic point of collection drugs of abuse testing device for professional use that incorporates collection and testing for the detection of drugs of abuse in human urine specimens. **Rapid TOX Cup II** uses one-step, lateral flow immunoassays for the simultaneous detection of up to fourteen (14) drugs of abuse. **Rapid TOX Cup II** may contain single assay and multiple assay test strips. The single assay test strips have the drug name labeled at the top of the strip and the multiple assay test strip has drug names printed on a separate label on the cup. All configurations of this cup are covered by these product instructions. **Rapid TOX Cup II** is intended for use in the qualitative detection of the following drugs of abuse, or for specimen validity testing in a human urine specimen at the following levels:

Compound	Test Abbreviation	Level (ng/mL)
Amphetamines (d-amphetamine sulfate)	AMP	500 1000 *
Barbiturates (butalbital)	BAR	300
Benzodiazepines (oxazepam)	BZO	300
Buprenorphine	BUP	12.5
Cocaine (benzoylecgonine)	COC	150 300 *
MDMA ((+/-) 3,4-methylenedioxy-methamphetamine) (Ecstasy)	MDMA	500 1000
Methadone	MTD	300
Methamphetamines ((+)-methamphetamine HCl)	MET	500 1000
Opiates (morphine-3-b-D-glucuronide)	OPI	300 2000 *
Oxycodone	OXY	100
Phencyclidine (phencyclidine HCl)	PCP	25 *
Propoxyphene	PPX	300
THC/ Cannabinoids (11-nor-Δ9-THC-9-carboxylic-acid)	THC	50 *
Tricyclic Antidepressants (nortriptyline)	TCA	1000

*Screening cut-off concentrations recommended by Substance Abuse Mental Health Services Administration (SAMHSA).

The barbiturates (BAR), benzodiazepines (BZO) and tricyclic antidepressants (TCA) tests will yield preliminary positive results when barbiturates, benzodiazepines or tricyclic antidepressants are ingested at or above therapeutic doses. There are no uniformly recognized drug levels for barbiturates, benzodiazepines, or tricyclic antidepressants in human urine. Certain foods or medicines may interfere with tests for barbiturates, benzodiazepines, and tricyclic antidepressants and may cause preliminary positive results.

SUMMARY AND EXPLANATION

Rapid TOX Cup II incorporates competitive immunoassays utilizing highly specific reactions between antibodies and antigens for the simultaneous detection of amphetamines, barbiturates, benzodiazepines, buprenorphine, cocaine, MDMA (ecstasy), methadone, methamphetamines, opiates, oxycodone, phencyclidine, propoxyphene, THC (cannabinoids), and tricyclic antidepressants in human urine.

PRINCIPLES OF THE TEST

Each **Rapid TOX Cup II** test device contains test strips for drugs of abuse that are one-step immunoassays. The specifically labeled drug (drug conjugate) competes for antibody binding sites with drugs or metabolites that may be present in the urine specimen. The test strip consists of a membrane strip with an immobilized drug conjugate. A colloidal gold-labeled antibody (mouse or rabbit) complex is dried at one end of the membrane. A control line, comprised of a different antibody/antigen reaction (Goat Anti-Mouse or Goat Anti-Rabbit), is present on the membrane strip. The control line is not influenced by the presence or absence of a drug analyte in the urine specimen, and therefore, it should be present in all reactions.

In the absence of any drug in the urine specimen, the colloidal gold-labeled antibody complex moves with the urine by capillary action to contact the immobilized drug conjugate. An antibody-antigen reaction occurs forming a visible line in the "test" area.

The formation of two (2) or more visible lines (control and test lines) occurs when the test is negative or below the cut-off for the drug. When a drug analyte is present in the urine specimen, the drug or metabolite will compete with the immobilized drug conjugate in the test area for the antibody binding sites on the colloidal gold-labeled antibody complex. If a sufficient amount of drug analyte is present, it will fill all of the available binding sites, thus preventing attachment of the labeled antibody to the drug conjugate. **The formation of a control line, and the absence of a test line is indicative of a preliminary positive result.**

REAGENTS AND MATERIALS SUPPLIED

Each case of **Rapid TOX Cup II** contains:

- Twenty five (25) **Rapid TOX Cup II** devices packaged in a foil pouch with a desiccant.
- Product Instructions

The **Rapid TOX Cup II** is a 200mL urine collection cup with a temperature strip attached, and an area printed on the cup label where the date and donor identification may be written. Each test cup contains a multi-channeled insert. Each channel containing a test strip has immunoassays for up to four (4) different drugs of abuse. Each test strip is comprised of a membrane with two (2) attached absorbent pads and a pad containing the immobilized colloidal gold-labeled antibody complex. The upper pad acts as a reservoir for the specimen after it migrates through the membrane. The test lines contain a carrier-drug conjugate for the individual analytes, dried on the membrane. The control line, containing goat anti-mouse IgG, is placed above the test lines on the membrane.

WARNINGS AND PRECAUTIONS

For in vitro diagnostic use.
Follow proper handling and disposal procedures.
For professional use.

While the Centers for Disease Control (CDC) has stated that "Universal precautions do not apply to feces, nasal secretions, sputum, sweat, tears, urine, and vomitus unless they contain visible blood.", the use of gloves is recommended for handling of all specimens and is good hygienic practice. The **Rapid TOX Cup II** test device may be disposed of in a regular trash receptacle without any special handling.

Do not use if foil pouch seal is not intact (seal broken, tears, holes, etc.).

Do not use if beyond the expiration date printed on the pouch. The expiration date is formatted as YYYY/MM, e.g. 2016/01 means the kits should not be used after the end of January, 2016.

STORAGE

The **Rapid TOX Cup II** test device should be stored at room temperature (59° to 86°F or 15° to 30°C) or refrigerated (36° to 46°F or 2° to 8°C). If refrigerated, allow test device to warm up to room temperature before conducting any testing.

SPECIMEN COLLECTION AND HANDLING

Use fresh urine specimens. Urine specimens do not require any special handling or pretreatment. It is best to test urine specimens immediately after collection. If necessary, urine specimens may be refrigerated at 36° to 46°F (2° to 8°C) for two (2) days or frozen at -4°F (-20°C) or colder for longer periods. If refrigerated, allow the specimen to warm up to room temperature before conducting any testing.

Instruct the donor to provide an adequate urine specimen.

A temperature strip is attached to the **Rapid TOX Cup II**. For fresh urine specimens a reading between 90-100°F (32-38°C) is considered a viable specimen. The temperature should be read within four (4) minutes and is indicated by a green dot. If the temperature strip remains black, erroneous results may occur. Results are stable for four (4) hours.

Use of gloves is recommended for handling of all specimens and is good hygienic practice. The **Rapid TOX Cup II** test device may be disposed of in a regular trash receptacle. Avoid contact with skin. Avoid cross-contamination of urine specimens by using a new container for each urine specimen.

PROCEDURE

- Verify the foil pouch is intact. Verify the product is within the expiration date as indicated on the pouch.
- Provide the donor with the **Rapid TOX Cup II** device and device cover.
- Remove the **Rapid TOX Cup II** from the foil pouch just prior to collection.
- Instruct donor to provide adequate specimen volume. Urine level must be above the minimum fill line printed on the **Rapid TOX Cup II**.
- Upon receipt of the specimen and within four (4) minutes, read the temperature strip to ensure it is between 90 – 100° F (32-38°C).
- The test strips in the **Rapid TOX Cup II** will begin running once urine is introduced into the cup. Keep the **Rapid TOX Cup II** in an upright position or place on a flat surface.
- Allow the test to proceed undisturbed until all reddish-purple control lines appear and the test background clears. The control line is the uppermost line in each channel in the test area. Once all control lines are visible the tests are ready to be interpreted, typically this occurs in three to five (3-5) minutes.
- Read results as explained under Interpretation of Results.

INTERPRETATION OF RESULTS - DRUG TEST

The test results may be interpreted once the control line(s) have formed and the background on the test strip(s) has cleared. This will occur in approximately three to five (3-5) minutes. The test results are determined by the presence or absence of the test and control lines, therefore color blindness will not affect reading the results of the test. The test results are stable for up to four (4) hours.

Test Valid

The device control line is the uppermost line appearing in each test channel. Before reading the test result lines, verify that the control line has formed in each test channel, indicating that the test is valid. If the control line does not appear in each test channel, the test is *invalid* and the test results must not be used. The test should be repeated using a new **Rapid TOX Cup II** device. The intensity of the control lines may vary. **Any line, without regard to intensity or size, is a line.**

Test Invalid

If no control line appears after approximately ten (10) minutes, consider the test *invalid*. Repeat the test using another **Rapid TOX Cup II** device.

Negative

A **NEGATIVE** result for a single drug in a multiple assay test strip is the presence of a reddish-purple line adjacent to the drug name. A **negative** result for a single assay test strip is the presence of two (2) reddish-purple lines, the upper control line and the lower test line. The intensity of the test lines may vary. **Any line, without regard to intensity or size, is a line.**

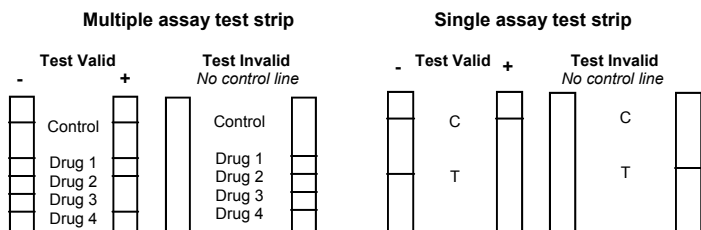
Preliminary Positive

A **PRELIMINARY POSITIVE** result for a single drug in a multiple assay test strip is the absence of a line adjacent to the drug name. A **preliminary positive** result for a single assay test strip is the presence of only one reddish-purple line (the control line) and no test line.

CONTROL LINE/ TEST LINE INTERPRETATION

Control Line	Test Line for Each Drug	Interpretation
No control line present	No test line present	Invalid test
No control line present	Test line present	Invalid test
Control line present	Test line present	Negative
Control line present	No test line present	Preliminary positive

Examples of Results:



Example: Drug 3 in the multiple assay test strip is preliminary positive

Note: It was determined in a study that there is no contamination of a urine sample from any component of the **Rapid TOX Cup II**, the reagent strips or the reagents in the strip that causes any interference with the test results during re-analysis by the confirmation laboratory of the sample after nine (9) days storage at room temperature. Both negative and preliminary positive samples were tested in this study at one (1), three (3), five (5), and nine (9) days post initial analysis. Negative results were obtained on all negative samples and preliminary positive results were obtained on all positive samples, showing no interference after one (1), three (3), five (5) and nine (9) days. Therefore, a sample that is transported to a laboratory for confirmation will not be affected due to storage of the sample in the **Rapid TOX Cup II** during transport and need not be transferred to another container.

QUALITY CONTROL

A procedural control (the control line [C]) is built into each test strip, indicating that the reagents on the device are present and functioning properly.

For laboratory use it is good laboratory practice to use positive and negative controls to ensure proper test performance. Follow federal, state and local requirements for QC testing. Control specimens are commercially available. Positive and negative controls should be used: 1) prior to using a new lot/shipment of test devices, 2) if the product has been stored outside the recommended storage conditions, or 3) as determined by your organization's protocol.

LIMITATIONS OF PROCEDURE

Rapid TOX Cup II is designed for use with human urine only.

Rapid TOX Cup II provides only a preliminary qualitative test result. Use a more specific alternate quantitative analytical method to obtain a confirmed analytical result. Liquid chromatography Mass spectrometry (tandem MS) LC-MS/MS or gas chromatography/mass spectrometry (GC/MS) are the preferred confirmatory method⁽¹⁾. HPLC may be used as the confirmatory method for tricyclic antidepressants. Use best judgment to any **Rapid TOX Cup II test result, particularly when preliminary positive results are obtained⁽²⁾.**

Other substances and/or factors not listed may interfere with the test and cause erroneous results, such as adulterants, procedural errors or cross reactivity with other drugs or agents. Refer to the Performance Characteristics section for more information.

PERFORMANCE CHARACTERISTICS

SPECIFICITY

Interference and cross reactivity studies were performed by testing the drug analytes in the **Rapid TOX Cup II** test device with various other drugs. Below is the list of drugs that will give a preliminary positive result at or above the concentration stated. All of the following drugs were added to normal, drug-free urine. **Note: The drugs listed are preliminary positive for only the drug test specified.**

DRUG TEST	CONCENTRATION
Amphetamines 500 ng/mL	
d-Amphetamine	500
d, l-Amphetamine	500
l-Amphetamine	20,000
Phentermine (a, a-Dimethylphenethylamine)	1250
(+/-) - Methylene-dioxyamphetamine (MDA)	750
Amphetamines 1000 ng/mL	
d-Amphetamine	1000
d, l-Amphetamine	1000
l-Amphetamine	20,000
Phentermine (a, a-Dimethylphenethylamine)	1250
(+/-) - Methylene-dioxyamphetamine (MDA)	750
Barbiturates	
Allobarbitol (5,5-Diallylbarbituric Acid)	300
Amobarbitol (Amytal; 5-Ethyl-5-isoamylbarbituric Acid)	1000
Aprobarbitol	150
Barbitol (Barbitone; 5,5-Diethylbarbituric Acid; Veronal)	1250
Butabarbitol	750
Butalbital	300
Butethal	500
5,5 Diphenylhydantoin (Phenytoin)	2500
Pentobarbitol (Nembutal)	300
Phenobarbitol	1500
Secobarbitol (Quinalbarbitone)	150
Talbutal	75
Buprenorphine	
Buprenorphine glucuronide	12.5
Codeine	10
Codeine	10,000
Hydrocodone	25,000
Metoclopramide	50,000
Morphine	25,000
Nalmefene	75,000
Naltrexone	100
Norbuprenorphine	10,000
Norbuprenorphine glucuronide	1500
Benzodiazepines	
Alpha-hydroxylprazolam	10,000
Alprazolam	75
Bromazepam	400
Chlordiazepoxide	150
Clobazam	100
Clonazepam	300
Clorazepate	100
Desalkylfurazepam	500
Desmethyldiazepam	100
N-desmethyflunitrazepam	100
Diazepam	100
Estazolam	500
Flunitrazepam	150
2-Hydroxyethylfurazepam	5000
4-Hydroxynordiazepam	4000
(+/-) Lorazepam	2200
Lorazepam glucuronide	250
Lormetazepam	500
Nitrazepam	75
Nitrazepam	500
Norchlordiazepoxide	150
Nordiazepam	150
Oxazepam	300
Oxazepam glucuronide	750
Sulindac	7500
Temazepam	100
Temazepam glucuronide	75
Triazolam	1500
Cocaine 150 ng/mL	
Benzoyllecgonine	150
Cocacethylene	150
Cocaine (Ecgonine Methyl Ester Benzoate)	100
Metoclopramide	80,000
Procaine (Novocaine)	75,000
Cocaine 300 ng/mL	
Benzoyllecgonine	300
Cocacethylene	300
Cocaine (Ecgonine Methyl Ester Benzoate)	100
Metoclopramide	80,000
Procaine (Novocaine)	75,000
MDMA (Ecstasy) 500 ng/mL	
(+/-) 3,4-methylenedioxy-methamphetamine (MDMA)	500
+/- Methamphetamine	500
+ Methamphetamine	500
(+/-) 3,4-Methylene-n-ethylmethamphetamine (MDEA)	20,000
Procaine	50,000
Rantidine	40,000
Trimethobenzamide	20,000
MDMA (Ecstasy) 1000 ng/mL	
(+/-) 3,4-methylenedioxy-methamphetamine (MDMA)	1000
+/- Methamphetamine	1000
+ Methamphetamine	500
(+/-) 3,4-Methylene-n-ethylmethamphetamine (MDEA)	20,000
Procaine	60,000
Rantidine	50,000
Trimethobenzamide	20,000

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Methadone	
Benzotropine Methane sulfonate	30,000
Diphenhydramine	50,000
Disopyramide	60,000
Isopropamide	500
(+/-) Methadone	300
(-)- α -Methadol	300
(-)- α -Acetylmethadol (LAAM)	2500
Procyclidine	50,000
Suxibuzone	25,000

Methamphetamines 500 ng/mL	
(+/-) 3,4-Methylenedioxy-n-ethylamphetamine (MDEA)	20,000
Procaine (Novocaine)	60,000
Trimethobenzamide	20,000
+/- Methamphetamine	500
(+/-) Methamphetamine	725
Ranitidine (Zantac)	50,000
(+/-) 3,4-Methylenedioxymethamphetamine (MDMA)	725

Methamphetamines 1000 ng/mL	
(+/-) 3,4-Methylenedioxy-n-ethylamphetamine (MDEA)	20,000
Procaine (Novocaine)	60,000
Trimethobenzamide	20,000
+/- Methamphetamine	1000
+ Methamphetamine	500
Ranitidine (Zantac)	50,000
(+/-) 3,4-Methylenedioxymethamphetamine (MDMA)	1000

Opiates 300 ng/mL	
6-Acetylmorphine	500
Codeine	100
Eserine (Physostigmine)	15,000
Ethylmorphine	100
Heroin (Diacetylmorphine)	500
Hydromorphone	2000
Hydrocodone	1250
Morphine	300
Morphine-3-b-D-Glucuronide	75
Nalorphine	500
Norcodeine	35,000
Oxycodone	50,000
Thebaine (Paramorphine)	13,000

Opiates 2000 ng/mL	
6-Acetylmorphine	1000
Codeine	800
Ethylmorphine	400
Heroin (Diacetylmorphine)	10,000
Hydromorphone	2000
Hydrocodone	5000
Morphine	1600
Morphine-3-b-D-Glucuronide	2000
Oxycodone	75,000
Thebaine (Paramorphine)	26,000

Oxycodone		
6-Acetylcodeine	Single assay: 11,000	Multi assay: 3000
6-Acetylmorphine	Single assay: 22,500	Multi assay: 750
Codeine	Single assay: 900	Multi assay: 300
Dihydrocodeine	Single assay: 325	Multi assay: 325
Hydromorphone	Single assay: 3,500	Multi assay: 1250
Hydrocodone	Single assay: 75	Multi assay: 20
Morphine	Single assay: 3,000	Multi assay: 450
Noroxycodone		50,000
Oxycodone		100
Oxymorphone	Single assay: 200	Multi assay: 50
Thebaine		25,000

Phencyclidine (PCP)	
Phencyclidine	25
4-Hydroxy phencyclidine	90
Phencyclidine Morpholine	625
Venlafaxine	100,000

Rapid TOX Cup II PCP also detects high concentrations of the cough suppressant dextromethorphan. In young children, dextromethorphan overdoses may produce a preliminary positive result for PCP. However, adults ingesting therapeutic dosages of dextromethorphan should not produce a preliminary positive result.

Propoxyphene	
Propoxyphene	300
Norpropoxyphene	200

THC/ Cannabinoids (Tetrahydrocannabinol)

Cannabinol	
Efavirenz **	25,000
11-Hydroxy-D9-Tetrahydrocannabinol	5000
11-Nor-D8-Tetrahydrocannabinol-9 Carboxylic Acid	50
11-Nor-D9-Tetrahydrocannabinol-9 Carboxylic Acid	50
11-Nor-D9-Tetrahydrocannabinol-9 Carboxylic Acid Glucuronide	2500
D8-Tetrahydrocannabinol	20,000
D9-Tetrahydrocannabinol	20,000

** Efavirenz is the generic drug found in some HIV treatment medications. Research sources have indicated that it is highly possible false positive results for THC may be observed in patients taking medications which may include Efavirenz.

Tricyclic Antidepressants	
Amitriptyline	1000
Clomipramine	75,000
Cyclobenzaprine	8000
Cyproheptadine	50,000
Desipramine	1000
Doxepin	5000
Imipramine	1000
Norclomipramine	2500
Nordoxepin	500
Nortriptyline	1000
Promazine	12,500
Protriptyline	2000
Trimipramine	3000

EFFECTS OF pH AND SPECIFIC GRAVITY

A series of experiments were conducted to evaluate the effects of pH on the reactivity of the **Rapid TOX Cup II** drug tests. Normal urine was adjusted to various pH levels by the addition of NaOH or HCl. Exogenous target drug or metabolite was then added to these pH-adjusted specimens to give a final concentration of the target cut-off level for that assay. A pH range of 3.0 to 12.0 was investigated. In all cases pH was found not to affect the ability of the **Rapid TOX Cup II** to detect the targeted level of drug or metabolite for that assay.

Additional experiments determined that specific gravity did not affect the ability of **Rapid TOX Cup II** drug tests to detect the targeted drug or metabolite at the target cut-off level for that assay. Normal urine, specific gravity of 1.020, were diluted to produce urine with lower specific gravity values. Exogenous drug or metabolite was then added to these specimens to give a final concentration of the target cut-off for that assay. An aqueous solution (specific gravity of 1.000) of the drug or metabolite with a concentration of the target cut-off was also evaluated. In all cases, over the specific gravity range of 1.005 to 1.020 preliminary positive results were obtained by **Rapid TOX Cup II** drug tests. Specific gravity has little or no effect on the reactivity of **Rapid TOX Cup II** drugs of abuse tests.

SENSITIVITY

Known concentrations of drug were added to normal, drug-free urine. Ten (10) determinations were made at each serial dilution of the single analyte. Sensitivity is defined as that concentration which produced preliminary positive responses in all ten (10) replicates.

DRUG	AVERAGE CONCENTRATION (ng/mL)	DRUG	AVERAGE CONCENTRATION (ng/mL)
Amphetamines	500	Methamphetamines	500
	1000		1000
Barbiturates	300	Opiates	300
			2000
Benzodiazepines	300	Oxycodone	100
Buprenorphine	12.5	Phencyclidine	25
Cocaine	150	Propoxyphene	300
	300		
MDMA (Ecstasy)	500	THC/Cannabinoids	50
	1000		
Methadone	300	Tricyclic Antidepressants	1000

SUMMARY

No immunoassay that produces a single response in relation to the presence of multiple components in a mixture can reliably quantify the concentration of these components. (For example, the **Rapid TOX Cup II** barbiturates test detects several barbiturates. Attempts to establish semi-quantitative concentrations are not recommended. The sensitivity of this test to detect barbiturates is at an average concentration of 300 ng/mL).

Drug	Concentration in ng/mL	Results # Pos./10
Amphetamines 500 ng/mL	250	3/10
	375	2/10
	500	10/10
	625	10/10
Amphetamines 1000 ng/mL	500	0/10
	750	2/10
	1000	10/10
	1250	10/10
Barbiturates	150	0/10
	225	2/10
	300	10/10
	375	10/10
Benzodiazepines	150	0/10
	225	2/10
	300	10/10
	375	10/10
Buprenorphine	5	0/10
	10	2/10
	12.5	10/10
	15	10/10
Cocaine 150 ng/mL	75	0/10
	113	2/10
	150	10/10
	187	10/10
Cocaine 300 ng/mL	150	0/10
	225	3/10
	300	10/10
	375	10/10
MDMA 500 ng/mL	250	0/10
	375	3/10
	500	10/10
	625	10/10
MDMA 1000 ng/mL	500	0/10
	750	2/10
	1000	10/10
	1250	10/10
Methadone	150	1/10
	225	3/10
	300	10/10
	375	10/10
Methamphetamines 500 ng/mL	250	0/10
	375	1/10
	500	10/10
	615	10/10
Methamphetamines 1000 ng/mL	500	0/10
	750	3/10
	1000	10/10
	1250	10/10
Opiates 300 ng/mL	150	0/10
	225	2/10
	300	10/10
	375	10/10
Opiates 2000 ng/mL	1000	0/10
	1250	3/10
	2000	10/10
	2500	10/10
Oxycodone	50	0/10
	75	3/10
	100	10/10
	125	10/10
Phencyclidine	13	0/10
	19	3/10
	25	10/10
	37	10/10
Propoxyphene	150	0/10
	225	3/10
	300	10/10
	375	10/10

(Summary chart continued)

Drug	Concentration in ng/mL	Results # Pos./10
THC/Cannabinoids	25	0/10
	38	3/10
	50	10/10
	75	10/10
Tricyclic Antidepressants	500	0/10
	750	2/10
	1000	10/10
	1250	10/10

ACCURACY

Contrived samples of known GC/MS results were tested on the **Rapid TOX Cup II** at the levels specified below.

Drug Name	Rapid TOX Cup II Result	Negative No Drug Present	Low Negative Less than 50% of the cutoff concentration	Near Negative Between 50% below the cutoff and the cutoff concentration	Near Positive Between the cutoff and 50% above the cutoff concentration	High Positive Greater than 50% above the cutoff concentration	Percent Agreement
OPI 2000ng/mL	POSITIVE	0	0	28	98	98	100%
	NEGATIVE	939	48	67	0	0	97.4%
OPI 300 ng/mL	POSITIVE	0	0	25	96	96	100%
	NEGATIVE	432	48	71	0	0	95.7%
METH 1000 ng/mL	POSITIVE	0	0	26	98	97	100%
	NEGATIVE	926	47	71	0	0	97.6%
METH 500 ng/mL	POSITIVE	0	0	29	96	96	100%
	NEGATIVE	96	48	67	0	0	87.9%
COC 300 ng/mL	POSITIVE	0	0	29	97	96	100%
	NEGATIVE	1295	49	69	0	0	98.0%
COC 150 ng/mL	POSITIVE	0	0	26	96	96	100%
	NEGATIVE	432	48	70	0	0	95.5%
AMP 1000 ng/mL	POSITIVE	0	0	17	104	104	100.0%
	NEGATIVE	1272	52	87	0	0	98.8%
AMP 500 ng/mL	POSITIVE	0	0	29	96	96	100
	NEGATIVE	432	48	67	0	0	95.0%
MDMA 1000 ng/mL	POSITIVE	0	0	18	106	106	100%
	NEGATIVE	925	53	88	0	0	98.3%
MDMA 500 ng/mL	POSITIVE	0	0	27	96	96	100%
	NEGATIVE	96	48	69	0	0	88.8%
THC 50 ng/mL	POSITIVE	0	0	26	104	104	100.0%
	NEGATIVE	2039	52	78	0	0	98.8%
OXY 100 ng/mL	POSITIVE	0	0	30	102	102	100%
	NEGATIVE	1372	51	72	0	0	98.0%
BZO 300 ng/mL	POSITIVE	0	0	13	106	106	100%
	NEGATIVE	2033	53	93	0	0	99.4%
BAR 300 ng/mL	POSITIVE	0	0	23	102	102	100%
	NEGATIVE	1279	51	79	0	0	98.4%
PPX 300 ng/mL	POSITIVE	0	0	28	104	104	100.0%
	NEGATIVE	1272	52	76	0	0	98.0%
PCP 25 ng/mL	POSITIVE	0	0	28	104	104	100%
	NEGATIVE	1272	52	76	0	0	98.0%
MTD 300 ng/mL	POSITIVE	0	0	33	106	106	100.0%
	NEGATIVE	2031	53	73	0	0	98.5%
BUP 12.5 ng/mL	POSITIVE	0	0	26	106	106	100.0%
	NEGATIVE	1264	53	80	0	0	98.2%
TCA 1000 ng/mL	POSITIVE	0	0	22	102	102	100%
	NEGATIVE	1276	51	80	0	0	98.5%

REPRODUCIBILITY

Reproducibility studies were carried out using contrived urine specimens. Each specimen was contrived to a specific concentration compared to drug cutoff. Each specimen was tested by approximately fifty (50) consumers in one day.

Drug	Concentration to Cutoff	Concentration in ng/mL	#	Results	Precision
AMP 500	0.5	254	48	NEG	36/48 (75.00%)
	0.75	389	48	NEG	31/48 (64.58%)
	1.25	650	48	POS	48/48 (100.00%)
	1.5	757	48	POS	48/48 (100.00%)
AMP 1000	0.5	280	52	NEG	45/52 (86.54%)
	0.75	818	52	NEG	42/52 (80.77%)
	1.25	1299	52	POS	52/52 (100.00%)
	1.5	1474	52	POS	52/52 (100.00%)
BAR	0.5	157	51	NEG	44/51 (86.27%)
	0.75	270	51	NEG	35/51 (68.63%)
	1.25	323	51	POS	51/51 (100.00%)
	1.5	687	51	POS	51/51 (100.00%)
BUP	0.5	4.2	53	NEG	46/53 (86.79%)
	0.75	5.0	53	NEG	34/53 (64.15%)
	1.25	10	53	POS	53/53 (100.00%)
	1.5	12	53	POS	53/53 (100.00%)
BZO	0.5	149	53	NEG	50/53 (94.34%)
	0.75	248	53	NEG	43/53 (81.13%)
	1.25	391	53	POS	53/53 (100.00%)
	1.5	438	53	POS	53/53 (100.00%)
COC 150	0.5	66	48	NEG	38/48 (79.17%)
	0.75	96	48	NEG	32/48 (66.67%)
	1.25	158	48	POS	48/48 (100.00%)
	1.5	193	48	POS	48/48 (100.00%)

(Reproducibility continued)

Drug	Concentration to Cutoff	Concentration in ng/mL	#	Results	Precision
COC 300	0.5	136	49	NEG	35/49 (71.43%)
	0.75	187	49	NEG	34/49 (69.39%)
	1.25	364	49	POS	49/49 (100.00%)
	1.5	402	48	POS	48/48 (100.00%)
MDMA 500	0.5	250	48	NEG	38/48 (79.17%)
	0.75	375	48	NEG	31/48 (64.58%)
	1.25	625	48	POS	48/48 (100.00%)
	1.5	750	48	POS	48/48 (100.00%)
MDMA 1000	0.5	500	53	NEG	47/53 (88.68%)
	0.75	750	53	NEG	41/63 (77.36%)
	1.25	1250	53	POS	53/53 (100.00%)
	1.5	1500	53	POS	53/53 (100.00%)
METH 500	0.5	250	48	NEG	37/48 (77.08%)
	0.75	375	48	NEG	30/48 (62.50%)
	1.25	625	48	POS	48/48 (100.00%)
	1.5	750	48	POS	48/48 (100.00%)
METH 1000	0.5	500	48	NEG	38/48 (79.17%)
	0.75	750	49	NEG	33/49 (67.25%)
	1.25	1250	49	POS	49/49 (100.00%)
	1.5	1500	49	POS	49/49 (100.00%)
MTD	0.5	150	53	NEG	38/53 (71.70%)
	0.75	225	53	NEG	35/53 (66.04%)
	1.25	375	53	POS	53/53 (100.00%)
	1.5	450	53	POS	53/53 (100.00%)

(Reproducibility continued)

CROSSREACTIVITY

The following drugs are not detected by **Rapid TOX Cup II** at concentrations less than 100,000 ng/mL unless otherwise specified:

Acebutolol
 Acetaldehyde
 Acetaminophen (*4-Acetamidophenol; N-Acetyl-paminophenol*)
 Acetazolamide
 Acetone
 3-(α -acetylbenzyl)-4-hydroxycoumarin (*Warfarin*)
 Acetophenetidin
 Acetopromazine
 N-Acetyl-L-cysteine
 6-Acetyl-morphine (*except OPI & OXY*)
 N-Acetylprocainamide (*Acetainide*)
 Acetylsalicylic Acid (*Aspirin; 2-Acetoxybenzoic Acid*)
 Albumin, standard
 Albuterol
 Allobarbitol (*5, 5-Diallylbarbituric Acid*) (*except BAR*)
 Allopurinol (*4-Hydroxypyrazole (3,4-) Pyrimidine*)
 Alpha- hydroxyriazolam*
 Alprazolam (*except BZO*)
 Alprenolol
 Amantadine (*Adamantan-1-amine*)
 Amcinonide
 (+) Amethopterin (*4-Amino-10-methylfolic acid; Methotrexate; Methylaminopterin*)
 Amikacin
 Amiloride
 p-Aminobenzoic Acid
 7-Aminoclonazepam
 7-Aminoflunitrazepam
 DL-Aminoglutethimide
 7-Aminonitrazepam
 Amiodarone
 Amitriptyline (*except TCA*)
 Ammonium Chloride
 Amobarbital (*amytal; 5-Ethyl-5- Isoamyl barbituric Acid*) (*except BAR*)
 Amoxetina
 Amoxicillin
 Amphotericin B
 D-Amphetamine (*except AMP*)
 DL-Amphetamine (*except AMP*)
 L-Amphetamine (*except AMP*)
 Ampicillin
 D-Amygdalin
 Aniline
 Antipyrine (*Phenazone*)
 Apomorphine
 Aprobarbital (*except BAR*)
 Aripiprazole
 Aripiprazole
 (-) Arterenol [*(-)-Norepinephrine*]
 L-Ascorbic Acid
 ASP-PHE-Methyl-Ester (*Aspartame*)
 D-Aspartic Acid
 DL-Aspartic Acid
 L-Aspartic Acid
 Astemizole
 Atenolol
 Atomoxetine
 Atropine (*Tropinotropate*)
 Atrovastin
 Azathioprine
 Baclofen
 Barbitol (*Barbitone; 5, 5-Diethylbarbituric acid; Veronal*) (*except BAR*)
 Barbituric Acid (*2, 4, 6- Trihydroxypyrimidine; Malonylurea*)
 Beclomethasone
 Beclomethasone Dipropionate
 Bendroflumethiazide
 Benzidine (*4, 4 Diaminobiphenyl*)
 Benicar
 Benzylic Acid β -diethylaminoethyl ester
 Benzocaine (*Ethyl-p-Aminobenzoate*)
 Benzoic Acid
 Benzonatate
 Benzoyllecgonine (*except COC*)
 Benzphetamine (*α -dimethylphenethylamine*)
 Benzthiazide
 Benztropine Methane sulfonate (*Benztropine Mesylate*)
 Benzyl alcohol
 Benzylamine
 Benzylpiperazine
 Berberine
 Betamethasone
 Bilirubin
 Bisacodyl
 Bromazepam (*except BZO*)
 2-Bromo- α -ergocryptine (*Bromocriptine mesylate*)
 (+) Brompheniramine (*Dexbrompheniramine*)
 (+/-) Brompheniramine
 Bumetanide
 Bupivacaine
 Buprenorphine (*except BUP*)
 Bupropion HCL
 Buspirone
 Butabarbital (*except BAR*)
 Butalbital (*except BAR*)
 Butethal (*except BAR*)
 Butacaine
 2-Butynoic Acid Ethyl Ester (*Ethyl-2-Butynoate*)
 Butyrophenone
 Caffeine (*1, 3, 7-Trimethylxanthine*)

Drug	Concentration to Cutoff	Concentration in ng/mL	#	Results	Precision
OPI 300	0.5	150	48	NEG	37/48 (77.08%)
	0.75	225	48	NEG	34/48 (70.83%)
	1.25	375	48	POS	48/48 (100.00%)
	1.5	450	48	POS	48/48 (100.00%)
OPI 2000	0.5	1000	47	NEG	34/47 (72.34%)
	0.75	1500	48	NEG	33/48 (68.75%)
	1.25	2500	49	POS	49/49 (100.00%)
	1.5	3000	49	POS	49/49 (100.00%)
OXY	0.5	50	51	NEG	39/51 (76.47%)
	0.75	75	51	NEG	33/51 (64.71)
	1.25	125	51	POS	51/51 (100.00%)
	1.5	150	51	POS	51/51 (100.00%)
PCP	0.5	12.5	52	NEG	41/52 (78.85%)
	0.75	18.75	52	NEG	35/52 (67.31%)
	1.25	31.25	52	POS	52/52 (100.00%)
	1.5	37.5	52	POS	52/52 (100.00%)
PPX	0.5	150	52	NEG	40/52 (76.92%)
	0.75	225	52	NEG	36/52 (69.23%)
	1.25	375	52	POS	52/52 (100.00%)
	1.5	450	52	POS	52/52 (100.00%)
TCA	0.5	500	51	NEG	41/51 (80.39%)
	0.75	750	51	NEG	39/51 (76.47%)
	1.25	1250	51	POS	51/51 (100.00%)
	1.5	1500	51	POS	51/51 (100.00%)
THC	0.5	25	52	NEG	41/52 (78.85%)
	0.75	37.5	52	NEG	37/52 (71.15%)
	1.25	62.5	52	POS	52/52 (100.00%)
	1.5	75	52	POS	52/52 (100.00%)

(Continued from previous page)

(+/-) Camphor
Cannabidiol
Cannabinol (except THC)
Canrenic Acid
Captopril
Carbamazepine
Carbamyl-β-methylcholine-chloride (Bethanechol Chloride)
Carboplatin
(s)-(-)-Carbidopa
Carisoprodol
Carvedilol
Cefaclor
Cefadroxil
Cefotaxime
Cefoxitin
Ceftriaxone
Cefuroxime
Cephalexin
Cephaloridine
Cephradine (Cefradine)
Cetirizine
α-Chloralose
Chloramphenicol (Chloramycetin)
Chlorcyclizine
Chlordiazepoxide (except BZO)
2-(p-Chlorophenoxy)-2-Methylpropionic Acid Ethyl Ester (Clofibrate)
Chloroquine
Chlorothiazide
Chlorotrianisene
(+)-Chlorpheniramine
(+/-)-Chlorpheniramine
Chlorpromazine
Chlorpropamide
Chlorprothixene
Chlorthalidone
Chlorzoxazone (5-Chloro-2-Hydroxybenzoxazole)
Cholesterol
Cimetidine
Cinchonidine
Cinoxacin
Ciprofloxacin
Citalopram*
Citalopram Hydrobromide*
Clarithromycin
Clemastine
Clenbuterol
Clindamycin
Clindamycin Phosphate
Clobazam (except BZO)
Clobetasone Butyrate
Clomipramine (except TCA)
Clonazepam (except BZO)
Clonidine
Clorazepate (except BZO)
Clorazepate Dipotassium
Cloxacillin
Clozapine
Coca ethylene (except COC)
Cocaine (Ecgonine Methyl Ester Benzoate) (except COC)
Codeine (Desferrioxamine Mesylate) (except BUP, OPI & OXY)
Colchicine
Cortisone
β-Cortol
Creatinine
Cromolyn (Cromoglycic Acid)
Cyclobenzaprine (except TCA)
Cyclophosphamide
Cyclosporin A
Cyproheptadine (except TCA)
Dantrolene
Deferoxamine Mesylate
Deoxyepinephrine
R-(-)-Deprenyl (Selegiline)
Desipramine (except TCA)
N-Desmethylozapine (Normethylozapine)
Desmethyldiazepam (except BZO)
Desoximetasone
Dexamethasone
Dexbrompheniramine
Dextromethorphan
4,4'-Diaminophenyl Sulfone (Dapsone)
Diazepam (except BZO)
Diazoide
Dichloromethane (Methylene Chloride)
Dichlorphenamide
Diclofenac
Dicyclomine
Dieldrin
Diethyldithiocarbamic Acid
N,N-Diethylnicotinamide (Niacin Diethylamide; Nيكهتاميد)
Diflorasone Diacetate
Diflucortolone pivalate
Diflunisal
Digitoxin
Digoxin (1,2 β-Hydroxydigitoxin)
DL-3,4 Dihydroxymandelic Acid
DL-3,4 Dihydroxyphenyl Glycol
3,4 Dihydroxyphenylacetic Acid
(2,3-Dihydroxypropyl) Theophylline (Dyphylline)
Diltiazem
Diltiazem-cardizem
Dimenhydrinate
Dimercaprol (2,3-Dimercaptopropanol)
4-Dimethylaminoantipyrine (Aminopyrine)
1,1-Dimethylbiguanide (Metformin)
Dimethyl isosorbide
Dimethyl Sulfoxide (DMSO)
1,3-Dimethyluric Acid
1,7-Dimethylxanthine
Diphenhydramine (except MTD)
5,5-Diphenylhydantoin (Phenytoin) (except BAR)
Dipyridamole
Dipyrene
Disopyramide (except MTD)
Divalproex
Dobutamine
Doxepin (except TCA)
Doxycycline
Doxylamine
Droperidol
Ecgonine
Ecgonine Methyl Ester
Efavirenz
Emetine
Enalapril
(-)-ψ-Ephedrine
(+)-ψ-Ephedrine
(+)-Ephedrine
(+/-)-Ephedrine
(-)-Epinephrine
(+/-)-Epinephrine
Erythromycin
Escitalopram
Eserine (Physostigmine) (except OPI)
Estazolam (except BZO)
β-Estradiol
Estrone
Estrone-β-D-Glucuronide
Estrone-3-Sulfate
Ethacrynic Acid
Ethambutol
Ethamivan (N,N-Diethylvanillamide)
Ethanol, Standard
Ethopropazine
Ethosuximide (2-Ethyl-2-Methylsuccinimide)
2-Ethyl -2-Phenylmalonamide
Ethylene Glycol
Ethylenediaminetetraacetic Acid (EDTA)
2-Ethylidene-1,5-Dimethyl-3-diphenylpyrrolidine
Ethylmorphine* (except OPI & OXY)
17-α-Ethinylestradiol
Etodolac
Etoposide
Ezetimibe
Famotidine
Felodipine
Fenfluramine
Fenpropfen [(+/-)-2-(3-Phenoxyphenyl) Propionic Acid]
Fentanyl*
Ferrous Sulfate
Fexofenadine
Fluoxetine
Flurbiprofen
Flufenamic Acid
Flunisolide
Flunitrazepam (except BZO)
Fluphenazine
Flurandrenolide
Flurazepam (except BZO)
Flurbiprofen
Formaldehyde
Furosemide
Gabapentin
Gemfibrozil
Gentamicin Sulfate
Gentisic Acid
Glucose
(D)-(+)-Glucose (Dextrose)
Glibenclamide
Griseofulvin
Guaiaicol Glyceryl Ether
Guaifenesin
Guanethidine
Halazepam
Halcinonide
Haloperidol
Hemoglobin
Heroin (Diacetylmorphine)* (except OPI)
Hexachlorocyclohexane
Hexachlorophene
Hexobarbital
Hippuric Acid
Histamine [2 (4-Imidazolyl) Ethylamine]
DL-Homatropine
Hydralazine (1-Hydrazinophthalazine)
(1S,9R)- β-Hydrastine
Hydrochlorothiazide
Hydrocodone (except BUP, OPI & OXY)
Hydrocortisone
Hydroflumethiazide
Hydromorphone (except OPI & OXY)
Hydroxocobalamin
O-Hydroxyhippuric Acid
5-Hydroxyindole-3-Acetic Acid
5-Hydroxy-2-indole-2-Carboxylic Acid
4-Hydroxy-3-Methoxyphenylacetic Acid (Homovanillic Acid)
4-Hydroxy Phencyclidine (except PCP)
11-Hydroxy-Δ9-Tetrahydrocannabinol* (except THC)
5-Hydroxytryptamine (Serotonin)
3-Hydroxytyramine
Hydroxyzine (Atarax)
L-Hyoscyamine
Ibuprofen
Irbesartan
Imidazole-4-Acetic acid
Imipramine (except TCA)
Indapamide
Indole-3-Acetic acid
Indole-3-Butyric Acid
DL-Indole-3-Lactic Acid
Indomethacin
Interferon
Ipratropium Bromide
Iproniazid
Isonicotinic Acid (Pyridine-4-Carboxylic Acid)
Isonicotinic Acid Hydrasid
Isopropamide (except MTD)
(+)-Isoproterenol
(-)-Isoproterenol
(+/-)-Isoproterenol
Isoxsuprine
Kanamycin
Ketamine
Ketoprofen
Kynurenic Acid
Labetalol
Lamotrigine
Lanoprazole
Lansoprazole
Levorphanol
Levothyroxine
Lidocaine
Linoleic Acid-Conjugated (CLA), Gamma, Alpha;
Eicosapentanoic, docahexanoic acid; omega 369
Lisinopril
Lithium Carbonate
Loperamide
Loratadine
(+/-)-Lorazepam (except BZO)
Lormetazepam (except BZO)
Lysergic Acid Diethylamide (LSD)
Mebendazole
Meclizine
Meclofenamic Acid
Medazepam
Mefenamic Acid
Melanin
Meloxicam
Melphalan
(-)-Menthol
Meperidine
Mephensin
Mephentermine
Meprobamate
6-Mercaptopurine
Mersalyl Acid
Mescaline (3,4,5-Trimethoxyphenethylamine)
DL-Metanephrine
Metaproterenol
Metaraminol [(/-)-m-Hydroxyphenylpropanolamine]
(+/-) Methadone (except MTD)
(+) Methamphetamine (Methylamphetamine; d-Desoxyephedrine) (except MDMA & MET)
(+/-) Methamphetamine (except MDMA & MET)
Methanol, Absolute
Methaqualone
Methazolamide
Methotrimeprazine
Methoxamine
Methoxamine
(S)-6-Methoxy-α-Methyl-2-Naphthalene Acetic Acid (Naproxen)
Methoxyphenamine
5-Methoxytryptamine
3-Methoxytyramine
2-Methyl-3-(3,4-dihydroxyphenyl)-DL-Alanine
2-Methyl-3-(3,4-dihydroxyphenyl)-L-Alanine
3,3'-Methylene-bis-(4-Hydroxycoumarin) (Dicumarol)
Methylene Blue
(+/-) 3,4-Methylenedioxyamphetamine (MDA) (except AMP)
(+/-) 3,4-Methylenedioxyamphetamine (MDMA) (except MET & MDMA)
(+/-) 3,4-methylenedioxy-n-ethylamphetamine (MDEA) (except MET & MDMA)
1-Methylhistamine
6 α-Methyl-17 α-Hydroxyprogesterone (Medroxyprogesterone)
6 α-Methylprednisolone (Medrol)
Methylphenidate (Ritalin)
Methyl Salicylate
Methyl Viologen (Gramoxone; Paraquat Dichloride)
Meticrane
Metoclopramide (except BUP & COC)
(+/-)Metoprolol
Metronidazole
Mexiletine (except AMP)
Mianserin
Midazolam
Milrinone
Minaprine
Minocycline
Mirtazapine (except BZO)
Morphine (except BUP, OPI & OXY)
Morphine-3-β-D-Glucuronide (except OPI)
Mupirocin
Nabumetone
Nadolol
Nafacillin
Nalburphine
Nalidixic Acid
Nalmefene (except BUP)
Nalorphine (except OPI)
Naloxone
Naltrexone (except BUP)
Naphazoline
α-Naphthalene Acetic Acid
β-Naphthalene Acetic Acid
α-Naphthol
Neomycin Sulfate
Nialamide
Nicotinic Acid (Niacin)
Nifedipine
Nitrazepam (except BZO)
Nitrofurantoin
Nomifensine
11-Nor-Δ8-Tetrahydrocannabinol-9-Carboxylic Acid* (except THC)
11-Nor-Δ9-Tetrahydrocannabinol-9-Carboxylic Acid* (except THC)
11-Nor-Δ9-THC-9-Carboxylic Acid Glucuronide* (except THC)
Norclomipramine (except TCA)
Norocaine
Norcodeine (except OPI)
Nordoxepin (except TCA)
Nordiazepam (except BZO)
Norethindrone
Norfloxacin
DL-Normetanephrine
Normorphine
d-Norpropoxyphene (except PPX)
Nortriptyline (except TCA)
Noscapine
Nyldrin
Olmesartan
Omeprazole
Orotic Acid (Uracil-6-Carboxylic Acid)
Orphenadrine
Oxalic Acid (Ethanedioic Acid)
Oxaprozin
Oxazepam (except BZO)
Oxolinic Acid
Oxybutynin Chloride
Oxycodone (except OPI & OXY)
Oxymetazoline
Oxyphenbutazone
Oxprenolol
Oxypurinol
Paclitaxel
Pancuronium Bromide
Pantoprazole
Papaverine
Pargyline
Paroxetine HCL
Phenazopyridine
Phencyclidine Morpholine (except PCP)
Penicillin G (Benzylpenicillin)
Pentachlorophenol
Pentobarbital (Nembutal) (except BAR)
Pentoxifylline (Trental)
Pentylenetetrazole
Phencyclidine (except PCP)
Phendimetrazine
p-Phenylenediamine
Phenelzine
Phenformin
Pheniramine
Phenobarbital (except BAR)
Phenol
Phenolphthalein
Phenothiazine (Thiodiphenylamine)
Phenoxyethyl Penicillinic Acid (Penicillin V)
Phentermine (α,α-Dimethylphenethylamine) (except AMP)
Phentolamine
DL-Phenylalanine
L-Phenylalanine
Phenylbutazone
L-Phenylephrine
(+/-)-α-Phenylethylamine
(α-Methyl benzylamine)
β-Phenylethylamine
(R)-(+)-α-Phenylethylamine
(+/-) Phenylpropanolamine (PPA)
Phenylsiamide
Phthalic Acid (1,2-Benzenedicarboxylic Acid)
Picrotoxin
Pilocarpine
Pimozide
Pinacidil
Pindolol
Pioglitazone
L-Pipecolic Acid
Pipemidic Acid
Piroxicam
Potassium Chloride
Potassium Iodide
Prazepam
Prazosin
Prednisolone (1-Dehydrocortisol)

(continued from previous page)

Prednisone (*Dihydrocortisone*)
 5-Pregnen-3 β -OL-20-one
 (*EPI pregnanolone; Pregnenolone*)
 Prilocaine
 Primaquine
 Primidone (*2-Desoxyphenobarbital*)
 Proadifen
 Probenecid [*p*-(*Dipropylsulfamoyl*)
Benzoic Acid]
 Procainamide
 Procaine (*Novocaine*) (*except COC, MDMA & MET*)
 Prochlorperazine
 Procyclidine (*except MTD*)
 Promazine (*except TCA*)
 Promethazine
 Propionyl promazine
 d-Propoxyphene (*except PPX*)
 DL-Propranolol
 2-Propylpentanoic Acid (*Valproic Acid*)
 Protein
 Pyridoxine
 Protriptyline (*except TCA*)
 d-Pseudoephedrine
 Pyridine-2-AldoximeMethochloride (*Pralidoxime Chloride*)
 Pyrilamine (*Mepyramine*)
 Quinapril
 Quinidine
 Quinine
 Quinolinic Acid (*2,3-Pyridinedicarboxylic Acid*)
 Ramipril
 Ranitidine (*Zantac*) (*except MDMA & MET*)
 Rescinnamine
 Reserpine
 Ribavirin
 Riboflavin
 Ritodrine
 Rosiglitazone
 Rosuvastatin
 Salbutamol (*Albuterol*)
 Salicylamide (*2-Hydroxybenzamide*)
 Salicylic Acid (*2-Hydroxybenzoic Acid*)
 (-) Scopolamine (*Hyoscine*)
 Secobarbital (*Quinalbarbitone*) (*except BAR*)
 Sertraline
 Simvastatin
 Sodium Chloride
 Sodium Formate
 (+/-)Sotalol
 Strychnine
 Succinylcholine Chloride
 Sulfamethazine
 Sulfamethoxazole
 Sulfanilamide (*p-Aminobenzenesulfonamide*)
 Sulfathiazole
 Sulfisoxazole
 Sulindac (*except BZO*)
 (+/-)Sulpiride
 Suxibuzone (*except MTD*)
 Talbutal (*except BAR*)
 Tamoxifen
 Tannic Acid
 Temazepam (*except BZO*)
 Tenoxicam
 Terazonin
 Terazosin
 Terazosin HCl
 Terbutaline
 Terfenadine
 Tetracycline
 Tetraethyl Thiuram Disulfide (*Disulfiram*)
 Δ 8-Tetrahydrocannabinol (*except THC*)
 Δ 9-Tetrahydrocannabinol (*except THC*)
 Tetrahydrozoline
 Thebaine (*Paramorphine*) (*except OPI & OXY*)
 Theobromine (*3,7-Dimethylxanthine*)
 Theophylline (*1,3-Dimethylxanthine*)
 Thiamine (*Aneurine*)
 Thimerosal (*Sodium Ethylmercurithiosalicylate*)
 Thioridazine
 cis-Thiothixene
 Thymol (*5-Methyl-2-Isopropylphenol*)
 Timolol
 Tobramycin
 Tolazamide
 Tolbutamide
 Tolmetin

Toluene
 cis-Tramadol
 Trans-2-Phenylcyclopropylamine
 (*Tranylcypromine-mine*)
 Tramadol HCl
 Trazodone
 Triamcinolone (*Fluoxiprednisolone*)
 Triamterene
 Triazolam* (*except BZO*)
 Trichlormethiazide
 Trichloroacetic acid
 2,2,2 Trichloroethanol
 Trifluoperazine
 Triflupromazine
 DL-Trihexyphenidyl
 Trimethobenzamide (*except MDMA & MET*)
 Trimethoprim
 3,5,5-Trimethyloxazolidine-2-4dione
 (*Trimethadione*)
 Trimipramine (*except TCA*)
 Triprolidine
 DL-Tropic Acid
 Tropine
 Tryptamine [*3-(2-Aminoethyl) Indole*]
 DL-Tryptophan (*3 β -Indoly(alanine; (+/-)- α -Amino-3-Indolepropionic Acid)*)
 d-Tubocurarine Chloride
 Tyramine (*4-Hydroxyphenethylamine*)
 DL-Tyrosine
 Urea (*Carbamide*)
 Uric Acid
 Vancomycin
 (+/-)Verapamil
 Venlafaxine (*except PCP*)
 Vincamine
 Vitamins
 Warfarin
 Xylometazoline
 Yohimbine
 Zearalenone
 Zolpidem
 Zomepirac
 Zopiclone

*tested at 10,000 ng/mL

Trouble Shooting Tips

Potential Failure	Potential Cause of Failure	Corrective/Preventive Actions
One or more of the test strips fails to flow immediately	The test strips may not all begin to flow at the same time It is not uncommon for strips to flow at different rates	If one or more of the test strips fail to flow after 1 minute, agitate the cup on a flat surface for a few seconds All test strips should yield results within the 3 to 5 minute time period Do not turn the cup upside down during the testing period
One or more of the test strips fail to flow	Insufficient sample Sample is below the minimum fill line	Ensure sample is above the minimum fill line labeled on the cup
Test results are washed out or test line(s) appears smeared	Vigorously shaking the cup or turning the cup upside down will flood the test strip(s)	Avoid excessive agitation or turning the cup upside down If agitation is necessary, lightly agitate the cup on a flat surface for a few seconds
Cup has leaked during shipment for confirmation	Lid was loosely placed on the cup prior to shipping	Ensure that the lid is placed on the cup and tightened appropriately prior to shipping
The Control Line(s) does not appear after 10 minutes	Flooding of the test strip(s) by excessive agitation or turning the cup upside down	Test is considered invalid Repeat the test Avoid excessive agitation or turning the cup upside down If agitation is necessary, lightly agitate the cup on a flat surface for a few seconds
The Control Line(s) does not appear after 10 minutes	Insufficient sample Sample below the minimum fill line	Test is considered invalid Repeat the test Ensure sample is above the minimum fill line labeled on the cup
Color blindness (For analyte result interpretation)	Result and control lines are colored	Color differentiation is not required to interpret the test results Once the control lines have formed the results are read by the appearance or lack of a line
Questionable results	Physical degradation of device, improper storage, opening package too soon prior to testing, attempting to read test results outside of result interpretation window	Follow product instructions for correct product storage, handling and result interpretation
Questionable results or excessive invalid results	Specimen adulteration	Upon receipt of the specimen and within four (4) minutes, read the temperature strip to ensure it is between 90 – 100° F (32-38°C)
Questionable results/ non-confirmation of preliminary positive results	Incorrect or lack of specimen confirmation testing	For the most reliable confirmation results, confirm by GC/MS at limit of detection levels

BIBLIOGRAPHY

1. *Urine Testing for Drugs of Abuse*, National Institute for Drug Abuse (NIDA), Research Monograph 73, 1986.
2. R. C. Baselt, *Disposition of Toxic Drugs and Chemicals in Man*, 2nd Ed., Biomedical Publications, Davis Ca., 1982.
3. Federal Register, *Department of Health and Human Services Mandatory Guidelines for Workplace Drug Testing Program*, 59, 110, 22918-29931 (1994).
4. *Stability of drugs of abuse in urine samples stored at -20°C*. S.Dugan, et. Al. J.Anal. Tox. 18 (7) 391-396 (1994).
5. *Long-term stability of abused drugs and anti-abuse chemotherapeutical agents stored at -20°C*, D.E. Moody, et.al., J. Anal Tox. 23 (6) 535-540 (1999).
6. CDC (1987) *Universal Precautions for Prevention of Transmission of HIV and Other Bloodborne Infections*. MMWR 1988,37:377-388.

Rapid TOX Cup II was developed and is manufactured by American Bio Medica Corporation.

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Rapid TOX Cup II is covered by U.S Patent No. 7,507,373 & 8,206,661; with additional patents pending

ABMC hereby warrants that its products covered under these Product Instructions will be free from defects in workmanship and materials at the time of sale. ABMC shall only be responsible for direct damages that may result from such defect in workmanship or materials. Test results should be confirmed by an accepted reference method such as GC/MS.



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