



122 Smith Road
 Kinderhook, NY 12106
 1.800.227.1243 ■ +1.518.758.8158
 www.abmc.com

Product Instructions

INTENDED USE

The **Rapid TOX™** is a one-step, lateral flow immunoassay for the simultaneous detection of up to ten abused drug analytes in urine (each analyte is represented by a separate test line in the test window of the cassette).

Rapid TOX is intended for use in the qualitative detection of the following drugs of abuse in human urine at the following levels:

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

Rapid TOX provides only a preliminary analytical test result. More specific alternative methods must be used to obtain a confirmed analytical result. Gas chromatography/mass spectrometry (GC/MS) is the preferred confirmatory method. Clinical and professional judgment should be applied to any drug of abuse test result, particularly when preliminary results are used.

The test is recommended for professional use. It is not intended for over-the-counter sales to non-professionals.

SUMMARY AND EXPLANATION

Rapid TOX incorporates competitive immunoassays utilizing highly specific reactions between antibodies and antigens for the detection of amphetamines, barbiturates, benzodiazepines, cocaine, MDMA (Ecstasy), methadone, methamphetamine, opiates, oxycodone, PCP, propoxyphene, THC and tricyclic antidepressants in urine.

PRINCIPLES OF THE TEST

Each **Rapid TOX** 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 complex is dried at one end of the membrane. A control line, comprised of a different antibody/antigen reaction, 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 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 one visible line (control line, no test line) is indicative of a positive result.**

REAGENTS AND MATERIALS SUPPLIED

Each case of **Rapid TOX** contains:

1. Fifty (50) **Rapid TOX** test devices. Each test device is packaged in a sealed foil pouch containing:
 - a. One test device with one or two channels containing a test strip that has immunoassays for up to five different drugs. Each test strip is comprised of a membrane with two 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.
 - b. One pipette
 - c. Desiccant
2. Product instructions

WARNINGS AND PRECAUTIONS

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

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 samples and is good hygienic practice. The **Rapid TOX** test devices 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 or embossed on the pouch. The expiration date is formatted as YYYY-MM, e.g. 2006-01 means the kits should not be used after the end of January, 2006.

STORAGE

The **Rapid TOX** devices 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 2° to 8°C for two days or frozen at -20°C or colder for longer periods.

Handle and dispose of urine specimens according to established protocols.

Avoid contact with skin.

Avoid cross-contamination of urine specimens by using a new container for each urine specimen.

PROCEDURES

Dip Procedure

1. Instruct donor to provide adequate sample volume. **Rapid TOX** dip procedure can be done with as little as 3 mL in a collection cup. If an adequate sample is not provided, see the Pipette Procedure.
2. Verify the foil pouch is intact. Verify the product is within the expiration date as indicated on the pouch. When an acceptable sample is obtained, the test device may be removed from the foil pouch.
3. Insert the bottom of test cassette into the urine sample up to the dip line for one to two (1-2) seconds. Do not allow urine to touch the cassette above the dip line.
4. Remove the test device from the sample and lay flat across the top of the cup or on a flat surface.
5. Allow the test to proceed until a reddish-purple control line appears and the test background clears. The control line [C] is the uppermost line in the test result area. Once the control line is visible the test is ready to interpret; typically this occurs in 3-5 minutes.
6. Read results as explained under Interpretation of Results.

Pipette Procedure/ Low Volume

1. Verify the foil pouch is intact. Verify the product is within the expiration date as indicated on the pouch. When an acceptable sample is obtained, the test device may be removed from the foil pouch.
2. Lay test device flat. An absorbent pad may be placed under the test device.
3. Using the pipette provided, apply three (3) drops of urine (approximately 100 uL) to the sample pad at the bottom of each test channel.
4. Allow the test to proceed undisturbed until a reddish-purple control line appears and the test background clears. The control line [C] is the uppermost line in the channel. Once the control line is visible, the test is ready to be interpreted; typically this occurs in 3-5 minutes.
5. Read results as explained under Interpretation of Results.

INTERPRETATION OF RESULTS

The test results may be interpreted once the control lines have formed and the background on the test strips has cleared. This will occur in approximately 3-5 minutes. 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 channel, indicating that the test is valid. If one of the control lines does not appear, the test is *invalid* and the test results must not be used. The test should be repeated using a new device. The intensity of the control lines may vary. Any line, without regard to intensity, color 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** device.

Negative

A **NEGATIVE** result for any single drug is the presence of a reddish-purple line adjacent to the drug name. The intensity of the test lines may vary. Any line, without regard to intensity, color or size is a line and indicates a negative result for that drug.

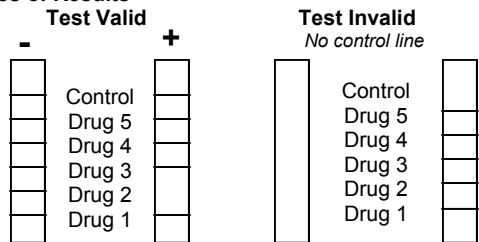
Positive (Non-negative)

A **POSITIVE** result for any single drug is the absence of a line adjacent to the drug name.

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	Positive

Examples of Results



Example: Drug 2 is positive

Note: It was determined in a study that there is no contamination of a urine sample from any component of the **Rapid TOX**, the reagent strips or the reagents in the strip that causes any interference with the test results during re-analysis by GC/MS of the sample after seven days storage at room temperature. Both negative and positive samples were tested in this study at 1, 3 and 7 days post initial analysis. Negative results were obtained on all negative samples and positive results were obtained on all positive samples, showing no interference after 1, 3 and 7 days. Therefore, a sample that is transported to a laboratory for confirmation will not be affected by insertion of the **Rapid TOX** into the sample.

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. It is also good laboratory practice to use positive and negative controls to ensure proper test performance. Control samples are commercially available. Positive and negative controls should be used prior to: 1) using a new lot/shipment of test devices, 2) if the product has been stored outside the recommended storage conditions, or 3) in accordance with your laboratory defined policies.

LIMITATIONS OF PROCEDURE

The assay is designed for use with human urine only.

Rapid TOX provides only a preliminary qualitative test result. Use a more specific alternate quantitative analytical method to obtain a confirmed analytical result. Gas chromatography/ mass spectrometry (GC/MS) is the preferred confirmatory method (1). HPLC may be used as the confirmatory method for tricyclic antidepressants. Apply clinical and professional judgment to any drug of abuse 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. If adulteration is suspected, obtain a fresh urine specimen and repeat testing.

PERFORMANCE CHARACTERISTICS

SPECIFICITY

Interference and cross reactivity studies were performed by testing the drug analytes in the **Rapid TOX** device with various other drugs. Below is the list of drugs that will give a 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 positive for only the drug test specified.

DRUG TEST

DRUG TEST	CONCENTRATION (ng/mL)
Amphetamines	
d-amphetamine	1000
d, l-amphetamine	1000
l-amphetamine	20000
Phentermine (a,a-Dimethylphenethylamine)	1250
(+/-) - Methylendioxyamphetamine (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
Benzodiazepines	
Alprazolam	75
Bromazepam	400
Chlordiazepoxide	150
Clobazam	100
Clonazepam	300
Desmethyldiazepam	100
Diazepam	100
Estazolam	500
Flunitrazepam	150
(+/-) Lorazepam	2200
Lormetazepam	500
Nitrazepam	75
Nordiazepam	150
Oxazepam	300
Sulindac	7500
Temazepam	100
Triazolam	1500
Cocaine metabolite	
Benzoylcegonine	300
Cocæthylene	300
Cocaine (Ecgonine Methyl Ester Benzoate)	100
Metoclopramide	80,000
Procaine (Novocaine)	75,000
MDMA (Ecstasy)	
(+/-) 3,4-methylenedioxy-methamphetamine (MDMA)	1000
+/- Methamphetamine	1000
+ Methamphetamine	500
(+/-) 3,4-methylene-n-ethylmethamphetamine (MDEA)	20,000
Procaine	60,000
Ranitidine	50,000
Trimethobenzamide	20,000
Methadone	
Benzotropine Methane sulfonate	30,000
Diphenhydramine	50,000
Disopyramide	60,000
Isopropamide	500
(+/-) Methadone	300
(-) -á-Methadol	300
(-) -á-Acetylmethadol (LAAM)	2500
Procyclidine	50,000
Suxibuzone	25,000
Methamphetamine	
(+/-) 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-Methylenedioxy-methamphetamine (MDMA)	1000
Opiate 300 ng/mL	
6-Acetylmorphine	500
Codeine	100
Eserine (Physosotigmine)	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	75,000
Thebaine (Paramorphine)	13,000

Opiate 2000 ng/mL

6-Acetylmorphine	1000
Codeine	800
Ethylmorphine	400
Heroin (Diacetylmorphine)	10,000
Hydromorphone	2000
Hydrocodone	5000
Morphine	1600
Morphine-3- β -D-Glucuronide	2000
Oxycodone	50,000
Thebaine (Paramorphine)	26,000

Oxycodone

6-Acetylcodeine	25,000
6-acetylmorphine	75,000
Codeine	12,500
Dihydrocodeine	3125
Hydromorphone	2500
Hydrocodone	625
Morphine	6250
Noroxycodone	50,000
Oxycodone	100
Oxymorphone	100
Thebaine	25,000

Phencyclidine (PCP)

Phencyclidine	25
4-Hydroxy phencyclidine	90
Phencyclidine Morpholine	625

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

Propoxyphene

Propoxyphene	300
Norpropoxyphene	300

THC/ Cannabinoids (Tetrahydrocannabinol)

Cannabinol	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

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

Effect of pH and Specific Gravity

A series of experiments were conducted to evaluate the effects of pH on the reactivity of the **Rapid TOX** individual 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** drugs 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** individual drug tests to detect the targeted drug or metabolite at the target cut-off level for that assay. Normal urines, specific gravity of 1.020, were diluted to produce urines 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 positive results were obtained by the **Rapid TOX** individual drug tests. Specific gravity has little or no effect on the reactivity of **Rapid TOX** drugs of abuse tests.

SENSITIVITY

1) Known concentrations of drug were added to normal, drug-free urine. Ten (10) determinations were made at each serial dilution of the single analyte.

DRUG	AVERAGE CONCENTRATION (ng/mL)	DRUG	AVERAGE CONCENTRATION (ng/mL)
Amphetamine	1000	Opiates, 300	300
Barbiturates	300	Opiates, 2000	2000
Benzodiazepine	300	Oxycodone	100
Buprenorphine	10	Phencyclidine	25
Cocaine metabolite	300	Propoxyphene	300
MDMA (Ecstasy)	1000	THC	50
Methadone	300	Tricyclic Antidepressants	1000
Methamphetamine	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. (e.g. the **Rapid TOX** Barbiturate 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 ng/mL	Results # +/-10
Amphetamine	500	0/10
	1000	8/10
	1250	10/10
Barbiturate	150	0/10
	225	8/10
	300	10/10
	375	10/10
Benzodiazepine	150	0/10
	225	8/10
	300	10/10
	375	10/10
Cocaine	150	0/10
	300	9/10
	375	10/10
	0	0/20
MDMA (Ecstasy)	500	1/20
	1000	20/20
	1250	20/20
Methadone	150	1/10
	225	7/10
	300	10/10
	375	10/10
Methamphetamine	500	0/10
	1000	10/10
	1250	10/10
Opiates, 300 ng/mL	150	1/10
	300	10/10
	375	10/10
Opiates, 2000 ng/mL	1000	0/10
	2000	10/10
	2500	10/10
Oxycodone	50	1/10
	75	8/10
	100	10/10
	125	10/10
Phencyclidine	12.5	0/10
	25	10/10
	37.5	10/10
Propoxyphene	150	1/10
	225	5/10
	300	10/10
	375	10/10
Norpropoxyphene	150	1/10
	225	5/10
	300	10/10
	375	10/10
THC/ Cannabinoids	25	0/10
	50	9/10
	62.5	10/10
Tricyclic Antidepressants	500	0/10
	750	8/10
	1000	9/10
	1250	10/10

ACCURACY

Clinical samples of known GC/MS results were tested on the Rapid Tox at the levels specified in the table below.

Drug Name	Rapid Tox Result	GC/MS Result (% of cutoff) ≤ cutoff				GC/MS Result (% of cutoff) ≥ cutoff		% Agreement
		Negative 0 ng/mL, 0 (No Drug)	Neg. <25% cutoff	Neg. 50% of cutoff to near cutoff 75%	Near cutoff 75% to Cutoff 100%	Cutoff 100% to 125%	>125% of cutoff	
Amphetamine	Pos	0	0	10	8	4	15	100%
	Neg	53	3	0	0	0	0	75.6%
Barbiturates	Pos	0	0	4	2	6	23	100%
	Neg	54	2	2	0	0	0	87.5%
Benzodiazepines	Pos	0	0	10	4	4	17	100%
	Neg	55	5	0	0	0	0	81.1%
Cocaine	Pos	0	1	4	3	6	26	100%
	Neg	51	1	1	0	0	0	86.9%
MDMA (Ecstasy)	Pos	0	0	0	0	3	38	100%
	Neg	52	2	3	4	0	0	100%
Methadone	Pos	0	3	4	1	3	23	100%
	Neg	56	6	0	0	0	0	88.6%
Methamphetamine	Pos	0	0	7	3	4	20	100%
	Neg	55	5	1	0	0	0	85.9%
Opiate (300)	Pos	0	0	1	0	4	34	100%
	Neg	51	1	0	0	0	0	98.1%
Opiate (2000)	Pos	0	4	7	8	4	10	100%
	Neg	57	7	0	0	0	0	81%
Oxycodone	Pos	0	0	4	3	1	30	100%
	Neg	52	2	0	0	0	0	88.5%
PCP	Pos	0	0	0	3	2	30	100%
	Neg	50	0	0	0	0	0	94.3%
Propoxyphene	Pos	0	0	0	7	7	17	100%
	Neg	51	1	8	0	0	0	89.6%
THC/ Cannabinoids	Pos	0	0	1	3	5	29	100%
	Neg	52	1	1	0	0	0	93.1%
Tricyclic Antidepressants *	Pos	0	N/A	N/A	N/A	50		100%
	Neg	40	N/A	N/A	N/A	0		100%

* Tested by HPLC

REPRODUCIBILITY

Reproducibility studies were carried out using commercially available standards. Each standard was diluted in normal, drug-free urine to give the appropriate concentration. Each specimen, at each concentration of analyte, was tested four times daily, in duplicate, for five consecutive days using two different lots of **Rapid TOX**. Note the following exceptions: 1. Amphetamine was tested with three clinically metabolized amphetamine

Drug	Concentration: ng/mL	#	Results	Precision
Amphetamine	0	40	40 neg	>99%
	1000	40	32 pos	>80%
	1250	40	40 pos	>99%
Barbiturate	0	40	40 neg	>99%
	150	40	40 neg	>99%
	225	40	36 pos	>90%
	300	40	40 pos	>99%
	375	40	40 pos	>99%
Benzodiazepine	0	40	40 neg	>99%
	150	40	39 neg	>97%
	225	40	36 neg	>90%
	300	40	40 pos	>99%
	375	40	40 pos	>99%
Cocaine	0	40	40 neg	>99%
	300	40	36 pos	>90%
	375	40	40 pos	>99%
MDMA (Ecstasy)	0	80	80 neg	>99%
	500	80	72 neg	>90%
	1000	80	80 pos	>99%
	1250	80	80 pos	>99%
	0	40	40 neg	>99%
Methadone	0	40	40 neg	>99%
	150	40	39 neg	>97%
	225	40	4 neg	>10%
	300	40	40 pos	>99%
	375	40	40 pos	>99%
Methamphetamine	0	40	40 neg	>99%
	1000	40	40 pos	>99%
	1250	40	40 pos	>99%
Opiates, 300 ng/mL	0	40	40 neg	>99%
	300	40	40 pos	>99%
	375	40	40 pos	>99%
Opiates, 2000 ng/mL	0	40	40 neg	>99%
	1500	40	40 pos	>99%
	2000	40	40 pos	>99%

Drug	Concentration	#	Results	Precision
Oxycodone	0	80	80 neg	>99%
	25	80	78 neg	>97%
	50	80	72 neg	>90%
	75	80	15 neg	>18%
	100	80	80 pos	>99%
	125	80	80 pos	>99%
Phencyclidine	0	40	40 neg	>99%
	25	40	40 pos	>99%
	32	40	40 pos	>99%
Norpropoxyphene	0	40	40 neg	>99%
	150	40	35 neg	>88%
	225	40	16 neg	>40%
	300	40	40 pos	>99%
	375	40	40 pos	>99%
THC/ Cannabinoids	0	40	40 neg	>99%
	50	40	40 pos	>99%
	75	40	40 pos	>99%
Tricyclic Antidepressants	0	40	40 neg	>99%
	500	40	40 neg	>99%
	750	40	8 neg	>20%
	1000	40	36 pos	>90%
	1250	40	40 pos	>99%

CROSSREACTIVITY

The following drugs are not detected by **Rapid TOX** 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
 Allobarbitol (5,5-Diallylbarbituric Acid) (except BAR)
 Allopurinol (4-Hydroxypyrazole (3,4-) Pyrimidine)
 Alprazolam (except BZO)
 Alprenolol
 Amantadine (Adamantan-1-amine)
 Aminoclonide
 (+) Amethopterin (4-Amino-10-methylfolic acid; Methotrexate, Methylaminopterin)
 Amikacin
 Amiloride
 p-Aminobenzoic Acid
 DL-Aminoglutethimide
 Amiodarone
 Amitriptyline (except TCA)
 Ammonium Chloride
 Amobarbital (amytal; 5-Ethyl-5- Isoamylbarbituric Acid) (except BAR)
 Amoxicillin
 Amphotericin B
 D-Amphetamine (except AMP)
 DL-Amphetamine (except AMP)
 L-Amphetamine (except AMP)
 Ampicillin
 D-Amygdalin
 Aniline
 Antipyrine (Phenazone)
 Apomorphine
 Aprobartol (except BAR)
 (-) Arterenol [(-)Norepinephrine]
 L-Ascorbic Acid
 ASP-PHE-Methyl-Ester (Aspartame)
 D-Aspartic Acid
 DL-Aspartic Acid
 L-Aspartic Acid
 Astemizole
 Atenolol
 Atropine (Tropinotropate)
 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)
 Benzillic Acid β -diethylaminoethyl ester
 Benzocaine (Ethyl-p-Aminobenzoate)
 Benzoic Acid
 Benzoyllecgonine (except COC)
 Benzphetamine (a-dimethylphenethylamine)
 Benzthiazide

Benzotropine Methane sulfonate (Benzotropine Mesylate)
 Benzyl alcohol
 Benzylamine
 Berberine
 Betamethasone
 Bilirubin
 Bisacodyl
 Bromazepam (except BZO)
 2-Bromo- α -ergocryptine (Bromocryptine mesylate)
 (+) Brompheniramine (Dexbrompheniramine)
 (+/-) Brompheniramine
 Bumetanide
 Bupivacaine
 Buprenorphine
 Buspirone
 Butabarbital (except BAR)
 Butalbital (except BAR)
 Butethal (except BAR)
 Butacaine
 2-Butyric Acid Ethyl Ester (Ethyl-2-Butyrate)
 Butyrophene
 Caffeine (1,3,7-Trimethylxanthine)
 (+/-) Camphor
 Cannabidiol
 Cannabinol (except THC)
 Canrenoic Acid
 Captopril
 Carbamazepine
 Carbamyl- β -methylcholine-chloride (Bethanechol Chloride)
 Carboplatin
 (s)-(-)-Carbidopa
 Carisoprodol
 Cefaclor
 Cefadroxil
 Cefotaxime
 Cefoxitin
 Ceftriaxone
 Cefuroxime
 Cephalixin
 Cephaloridine
 Cephadrine (Cefradin)
 α -Chloralose
 Chloramphenicol (Chloromycetin)
 Chlorcyclizine
 Chlordiazepoxide (except BZO)
 2-(p-Chlorophenoxy)-2-Methylpropionic Acid Ethyl Ester (Clofibrate)
 Chloroquine
 Chlorothiazide
 Chlorotrianisene
 (+)Chlorpheniramine
 (+/-)Chlorpheniramine
 Chlorpromazine
 Chlorpropamide
 Chlorprothixene
 Chlorhalidone
 Chlorzoxazone (5-Chloro-2-Hydroxybenzoxazole)
 Cholesterol
 Cimetidine
 Cinchonidine
 Cinoxacin
 Clemastine
 Clenbuterol
 Clindamycin
 Clobazam (except BZO)
 Clobetason Butyrate
 Clomipramine (except TCA)
 Clonazepam (except BZO)
 Clonidine
 Cloxacillin
 Clozapine
 Cocaethylene (except COC)
 Cocaine (Ecgonine Methyl Ester Benzoate) (except COC)

Codeine (*Deferrioxamine Mesylate*) (except OPI & OXY)
Colchicine
Corticisone
β-Cortol
(-) Cotinine
Creatinine
Cromolyn (*Cromolygic Acid*)
Cyclobenzaprine (except TCA)
Cyclophosphamide
Cyclosporin A
Cyproheptadine (except TCA)
Dantrolene
Deferoxamine Mesylate
Deoxyepinephrine
R-(-)-Deprenyl (*Selegiline*)
Desipramine (except TCA)
N-Desmethyloclozapine (*Normethyloclozapine*)
Desmethyldiazepam (except BZO)
Desoximetasone
Dexamethasone
Dextromethorphan
4,4'-Diaminophenyl Sulfone (*Dapsone*)
Diazepam (except BZO)
Diazoxide
Dichloromethane (*Methylene Chloride*)
Dichlorophenamide
Diclofenac
Dicyclomine
Dieldrin
Diethylthiocarbamic 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*)
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)
Dobutamine
Doxepin (except TCA)
Doxycycline
Doxylamine
Droperidol
Ecgonine
Ecgonine Methyl Ester
Emetine
(-)-ψEphedrine
(+)-ψ-Ephedrine
(+)-Ephedrine
(+/-)Ephedrine
(-)Epinephrine
(+/-)Epinephrine
Erythromycin
Eserine (*Physostigmine*) (except OPI)
Estazolam (except BZO)
β-Estradiol
Estril
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
Ethylenediaminetetracetic Acid (*EDTA*)
2-Ethylidene-1,5-Dimethyl-3,3-diphenylpyrrolidine
Ethylmorphine* (except OPI & OXY)
17-α-Ethinylestradiol
Etodolac
Etoposide
Famotidine
Fenfluramine
Fenpropafen [(+/-)-2-(3-Phenoxyphenyl) Propionic Acid]
Fentanyl*
Ferrous Sulfate
Flurbiprofen
Flufenamic Acid
Flunisolide
Flunitrazepam (except BZO)
Fluphenazine
Flurandrenolide
Flurazepam (except BZO)
Flurbiprofen
Formaldehyde
Furosemide
Gemfibrozil
Gentamicin Sulfate
Gentisic Acid
Glucose
(D)-(+)-Glucose (*Dextrose*)
Glybenclamide
Griseofulvin
Guaiaacol Glyceryl Ether
Guanethidine
Halcinonide
Haloperidol
Hemoglobin
Heroin (*Diacetylmorphine*)* (except OPI)
Hexachlorocyclohexane
Hexchlorophene
Hexabarbitol
Hipuric Acid
Histamine [2 (*4-Imidazolyl*) Ethylamine]
DL-Homatropine
Hydralazine (*1-Hydrazinophthalazine*)
(1S,9R)- β-Hydrastine
Hydrochlorothiazide
Hydrocodone (except 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
Imidazole-4-Acetic acid
Imipramine (except TCA)
Indapamide
Indole-3-Acetic acid
Indole-3-Butyric Acid
DL-Indole-3-Lactic Acid
Indomethacin
Ipratropium Bromide
Iproniazid
Isonicotinic Acid (*Pyridine-4-Carboxylic Acid*)
Isonicotinic Acid Hydrate
Isopropamide (except MTD)
(+)-Isoproterenol
(-)-Isoproterenol
(+/-)Isoproterenol
Isoxsuprine
Kanamycin
Ketamine
Ketoprofen
KynurenicAcid
Labetalol
Levorphanol
Lidocaine
Lisinopril
Lithium Carbonate
Loperamide
(+/-)Lorazepam (except BZO)
Lormetazepam (except BZO)
Lysergic Acid Diethylamide (*LSD*)
Mebendazole
Meclizine
Meclufenamic Acid
Medazepam
Mefenamic Acid
Melanin
Melphalan
(-)Menthol
Meperidine
Mephensin
Mephentermine
Meprobamate
6-Mercaptopurine
MersalyAcid
Mescaline (*3,4,5-Trimethoxyphenylethylamine*)
DL-Metanephine
Metaprotrolerol
Metaraminol [(*-*)-*m*-Hydroxyphenylpropanolamine]
(+/-) Methadone (except MTD)
(+) Methamphetamine (*Methylamphetamine; d-Desoxyephedrine*) (except MDMA & MET)
(+/-) Methamphetamine (except MDMA & MET)
Methanol, Absolute
Methaqualone
Methazolamide
Methotrimeprazine
Methoxamine
Methoxyamine
(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) (*Dicu-*

marol)
Methylene Blue
(+/-) 3,4-Methylenedioxyamphetamine (*MDA*) (except AMP)
(+/-) 3,4-Methylenedioxy-methylamphetamine (*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*)
Metricrane
Metoclopramide (except COC)
(+/-)Metoprolol
Metronidazole
Mianserin
Milrinone
Minaprine
Morphine (except OPI & OXY)
Morphine-3-β-D-Glucuronide (except OPI)
Nabumetone
Nadolol
Nafacillin
Nalbuphine
Nalidixic Acid
Nalmefene
Nalorphine (except OPI)
Naloxone
Naltrexone
Naphazoline
α-Naphthalene Acetic Acid
β-Naphthalene Acetic Acid
α-Naphthol
Neomycin Sulfate
Niacinamide
Nialamide
(+/-) Nicotine
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)
Norcocaine
Norcodeine (except OPI)
Nordoxepin (except TCA)
Nordiazepam (except BZO)
Norethindrone
Norfloracin
DL-Normetanephine
Normorphine
d-Norpropoxyphene (except PPX)
Nortriptyline (except TCA)
Noscapine
Nydrin
Orotic Acid (*Uracil-6-Carboxylic Acid*)
Orphenadrine
Oxalic Acid (*Ethanedioic Acid*)
Oxazepam (except BZO)
Oxolinic Acid
Oxybutynin Chloride
Oxycodone (except OPI & OXY)
Oxymetazoline
Oxyphenbutazone
Oxyprenolol
Oxypurinol
Paclitaxel
Pancuronium Bromide
Papaverine
Pargyline
Phencyclidine Morpholine (except PCP)
Penicillin G (*Benzylpenicillin*)
Pentachlorophenol
Pentobarbital (*Nembutal*) (except BAR)
Pentoxifylline (*Trental*)
Pentylene-tetrazole
Phencyclidine (except PCP)
p-Phenylenediamine
Phenelzine
Phenformin
Pheniramine
Phenobarbital (except BAR)
Phenol
Phenolphthalein
Phenothiazine (*Thiodiphenylamine*)
Phenoxy-methyl Penicillinic Acid (*Penicillin V*)
Phentermine (*α,α-Dimethylphenethylamine*) (except AMP)
Phentolamine
DL-Phenylalanine
L-Phenylalanine
Phenylbutazone
L-Phenylephrine
(+/-)-α-Phenylethylamine (*α-Methylbenzylamine*)
β-Phenylethylamine
(R)-(+)-α-Phenylethylamine

(+/-) Phenylpropanolamine (*PPA*)
Phenyltoloxamine
Phthalic Acid (*1,2-Benzenedicarboxylic Acid*)
Picrotoxin
Pilocarpine
Pimozide
Pinacidil
Pindolol
L-Pipecolic Acid
Pipemidic Acid
Piroxicam
Potassium Chloride
Potassium Iodide
Prazepam
Prazosin
Prednisolone (*1-Dehydrocortisol*)
Prednisone (*Dehydrocortisone*)
5-Pregnen-3β-OL-20-one (except *Epipregnanolone; Pregnenolone*)
Pilocaine
Primaquine
Primidone (*2-Desoxyphenobarbital*)
Proadifen
Probenecid [*p*-(*Dipropylsulfamoy*) Benzoic Acid]
Procainamide
Procaine (*Novocaine*) (except COC, MDMA & MET)
Prochlorperazine
Procyclidine (except MTD)
Promazine (except TCA)
Promethazine
Propionylpromazine
d-Propoxyphene (except PPX)
DL-Propranolol
2-Propylpentanoic Acid (*Valproic Acid*)
Protein
Protriptyline (except TCA)
d-Pseudoephedrine
Pyridine-2-AldoximeMethochloride (*Pralidoxime Chloride*)
Pyridoxine
Pyrilamine (*Mepyramine*)
Quinidine
Quinine
Quinolinic Acid (*2,3-Pyridinedicarboxylic Acid*)
Ranitidine (*Zantac*) (except MDMA & MET)
Rescinnamine
Reserpine
Riboflavin
Ritodrine
Salbutamol (*Albuterol*)
Salicylamide (*2-Hydroxybenzamide*)
Salicylic Acid (*2-Hydroxybenzoic Acid*)
(-) Scopolamine (*Hyoscyine*)
Secobarbital (*Quinalbarbitone*) (except BAR)
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
Terbutaline
Terfenadine
Tetracycline
Tetraethyl Thiuram Disulfide (*Disulfiram*)
Δ8-Tetrahydrocannabinol (except THC)
Δ9-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 (except BZO)
Trans-2-Phenylcyclopropylamine (*Tranylcypro-*

DL-Trihexyphenidyl
Trimethobenzamide (except MDMA & MET)
Trimethoprim
3,5,5-Trimethyloxazolidine-2-dione (Trimethadione)
Trimipramine (except TCA)
Triprolidine
DL-Tropic Acid
Tropine
Tryptamine [3-(2-Aminoethyl) Indole]
DL-Tryptophan (3 β -Indolylalanine; (+/-)- α -Amino-3-Indolepropionic Acid)
d-Tubocurarine Chloride
Tyramine (4-Hydroxyphenethylamine)
DL-Tyrosine
Urea (Carbamide)
Uric Acid
Vancomycin
(+/-)Verapamil
Vincamine
Xylometazoline
Yohimbine
Zearalenone
Zomepirac
Zopiclone

*tested at 10,000 ng/mL

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

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American Bio Medica Corporation
122 Smith Road
Kinderhook, NY 12106
Tel: +1.518.758.8158
Fax: +1.518.758.8171
E-mail: tech@abmc.com

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06-RLB-406 Rev B