

, Know Drug **Know Drug Test Cup™**

For Employment, Insurance, or Forensic Use Only

The Know Drug Test Cup is a one-step immunoassay for the qualitative detection of multiple drugs of abuse and/or their metabolites in human urine at the following cutoff concentrations:

Abbreviation	Class	Calibrator	Cutoff(ng/ml)
6AM	Heroin	6-Acetylmorphine	10
AMP300	Amphetamines	d-Amphetamine	300
AMP500	Amphetamines	d-Amphetamine	500
AMP1000	Amphetamines	d-Amphetamine	1000
APAP	Acetaminophen	Acetaminophen	5000
BAR200	Barbiturates	Secobarbital	200
BAR300	Barbiturates	Secobarbital	300
BUP	Buprenorphine	Buprenorphine	10
BZO200	Benzodiazepine	Oxazepam	200
BZO300	Benzodiazepine	Oxazepam	300
COC150	Cocaine	Benzoylecgonine	150
COC300	Cocaine	Benzoylecgonine	300
COT	Nicotine	Cotinine	200
EDDP	Methadone	2-ethylidene-1,5-dimethyl-3,3- diphenylpyrolidine	300
EtG	Alcohol	Ethyl Glucuronide	500
FEN20	Fentanyl	Norfentanyl	20
FEN5	Fentanyl	Norfentanyl	5
K2 10	Syn Cann	JWH-018 5-Pentanoic Acid Metabolite	10
K2+10	Syn Cann	AB-PINACA Pentanoic Acid Metabolite	10
KET	Ketamine	Ketamine	1000
MDMA	Ecstasy	Methylenedioxymethamphetamine	500
MDPV	Bath Salts	Methylenedioxypyrovalerone	1000
MET500	Methamphetamine	d-Methamphetamine	500
MET1000	Methamphetamine	d-Methamphetamine	1000
MTD	Methadone	d/l-Methadone	300
OPI300	Opiates	Morphine	300
OPI2000	Opiates	Morphine	2000
OXY	Oxycodone	Oxycodone	100
PCP	Phencyclidine	Phencyclidine	25
PPX	Propoxyphene	d-Propoxyphene	300
TCA	Tricyclics	Nortriptyline	1000
THC20	Marijuana	11-nor-∆9-THC-COOH	20
THC50	Marijuana	11-nor-∆9-THC-COOH	50
TRA	Tramadol	Tramadol	200

The Know Drug Test Cup is intended for the detection of drugs of abuse and/or metabolites in human urine for employment, insurance and forensic use screening purposes only, excluding tests intended for Federal drug testing programs (SAMHSA, DOT, US Military).

The test provides a preliminary result only; presumptive positive results should be confirmed using an alternate chemical methodology (such as GC/MS, LC/MS, GC/MS/MS and LC/MS-MS) if donor doesn't acknowledge drug use or if your policies require.

The Know Drug Test Cup can consist of any combination of the drugs listed above with or without Specimen Validity Tests (SVT). The specimen validity test provides information regarding the integrity of urine sample through the semi-quantitative determination of creatinine, nitrite, pH, oxidants, glutaraldehyde, and specific gravity in human urine.

REAGENTS & MATERIALS SUPPLIED

- 25 individually wrapped integrated cups
- · One instruction sheet
- One Adulteration Color Comparison Chart for interpretation of SVT test result (if applicable)

MATERIALS REQUIRED BUT NOT PROVIDED

Specimen collection container

WARNINGS AND PRECAUTIONS

- Treat all urine specimens and materials as if capable of transmitting infection. Wear
 gloves and proper laboratory attire to avoid skin contact with urine specimens. Proper
 handling and disposal methods should be established.
- Collect a fresh urine sample directly into the test cup. Fresh urine does not require any special pretreatment. If the specimen is not tested immediately, it may be refrigerated at 2-8°C up to 2 days.
- Do not use the test kit after the expiration date.

PROCEDURE

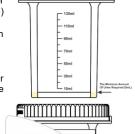
Preparation:

- If refrigerated, allow the test device, controls, and/or specimens to equilibrate to room temperature (15-30°C) prior to testing.
- Do not open the test device pouch until ready to perform the test

Testing:

- Remove the cup from the sealed pouch. If required by your process, write the donor name or ID on the label in the
- provided space, and then remove the cap.

 2. Collect urine in the cup. Minimum volume required is
- 5mL.
- 3. Peel label to view results
- 4. Negative results can be interpreted as soon as the control lines appear and there are visible Test lines which usually occurs within 1 minute. Positive drug screen test results should be read at 5 minutes. All results remain stable for 60 minutes.



Read Specimen Validity Test (SVT) results by comparing the color of the reagent pads to the corresponding color blocks on the color chart at 3 to 5 minutes. Position of SVT pads may vary based on the drug strip configuration.

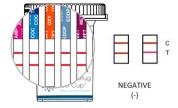
RESULT INTERPRETATION

Negative Results

Colored lines appear in both Control Region "C" and Test Region "T".

The red or pink line must appear next to the "C" (control) on all of the test strips. The appearance of a red or pink line next to the "C" on each test strip indicates that the test has worked properly.

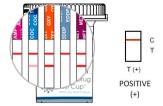
The red or pink line next to the "T" (drug test line) under the drug name indicates a negative result for that drug. If a test line appears next to the "T" for all drugs, the sample is considered negative. Certain lines may appear lighter or thinner than other lines.



Preliminary Positive Results:

Colored line appears in the control region. No line appears in the test region. If NO red or pink line appears next to the "T" under the drug name, the sample may contain that drug. Send the sample to a laboratory for confirmation testing.

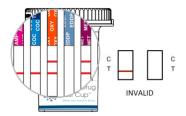
The illustration to the right shows preliminary positive results for the first strip and the fourth strip, but negative for all other drugs.



Invalid Result:

A colored line (Control Line) should always appear next to the letter "C" on every test strip. If no control line appears on any of test strips, the result is invalid.

The illustration shows no line next to the letter "C" on the first, second and fourth strips. The results for those three test strips are invalid.



Specimen Validity Tests:

Specimen validity test results are obtained by directly comparing the color of each test pad with the color block of Adulteration Color Comparison Chart. Problematic urine samples will produce abnormal color responses.



The Know Drug Test Cup should be stored at 2-30°C (36-86°F) in the original sealed pouch. Do not freeze. Do not store and/or expose reagent kits to temperatures greater than 30°C. Use the test kit within two (2) hours after opening the pouch.

QUALITY CONTROL

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

PERFORMANCE CHARACTERISTICS

A. ACCURACY

The accuracy of the Know Drug Test Cup was evaluated in comparison to GC/MS and LC/MS (LC/MS/MS). Drug-free urine samples collected from presumed non-user volunteers were tested with the Know Drug Test Cup. Of these negative samples, all were correctly identified as negative. 10% of the negative samples were confirmed with GC/MS as drug negative. Drug concentrations were confirmed with GC/MS and LC/MS (for TCA, FEN and EtG). A summary of the accuracy results on the Know Drug Test Cup are shown in the following table.

Summary of Accuracy Results on the Know Drug Test Cup

Cumming of Account of the Cum of									
D			Range of GC/MS (or the like) Data						
Drug Test/Cutoff (ng/ml)	Drug- free	-50% - <-25% C/O	-25% -C/O	C/O - +25% C/O	>+25% - +50%C/O	>+50/% C/O	% Agreement		
0.004/40	Neg	40	4	1	0	0	0	100%	
6-AM/10	Pos	0	0	0	1	4	35	100%	
AMD/000	Neg	40	0	0	0	0	0	100%	
AMP/300	Pos	0	0	0	0	0	52	100%	
AMP/500	Neg	40	3	0	0	0	0	97.70%	
AIVIP/500	Pos	0	0	1	2	2	45	100%	
AMP/1000	Neg	40	3	3	0	0	0	100%	
	Pos	0	0	0	3	3	40	100%	

FEN/20									
Pos O O O O O O O O O	ADAD/5000	Neg	35	0	0	0	0	0	100%
BAR/200 BAR/300 Reg 40 1 1 1 0 0 0 0 95.20% BUP/10 Neg 40 1 1 1 0 0 0 0 95.20% BUP/10 Pos 0 0 2 5 2 3 36 100% BZO/200 Neg 40 0 1 0 0 0 93.2% BZO/300 Pos 0 0 0 2 8 0 0 32 100% BZO/300 Pos 0 0 0 3 2 2 4 3 100% BZO/300 Pos 0 0 0 3 1 0 0 0 93.2% Pos 0 0 0 3 1 6 34 100% COC/150 Pos 0 0 0 3 1 6 34 100% COC/150 Pos 0 0 0 1 4 4 1 53 100% COC/300 Neg 40 3 2 0 0 0 0 97.70% Pos 0 0 0 0 2 3 35 100% COT/200 Pos 0 0 0 0 2 3 35 100% EDDP/300 Pos 0 2 2 1 7 7 79 94.60% EDDP/300 Pos 0 0 3 5 2 33 100% EEG/500 Pos 0 0 0 3 5 2 33 100% EEG/500 Pos 0 0 0 3 5 2 33 100% EEG/500 Pos 0 0 0 3 5 2 33 100% FEN/20 Pos 0 0 0 3 3 5 2 33 100% FEN/20 Pos 0 0 0 3 3 5 2 33 100% EX2/10 Pos 0 0 0 0 1 3 3 4 0 97.87% FEN/20 Pos 0 0 0 0 1 3 3 4 0 97.87% FEN/20 Pos 0 0 0 0 1 3 3 4 0 97.87% FEN/20 Pos 0 0 0 0 1 3 3 4 0 97.87% FEN/20 Pos 0 0 0 0 0 0 0 0 99.06% K2/10 Pos 0 0 0 0 0 0 0 0 0 0 99.06% K2/10 Pos 0 0 0 0 0 0 0 0 0 0 0 99.06% K2/10 Pos 0 0 0 0 0 0 0 0 0 0 0 99.06% K2/10 Pos 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	APAP/5000	Pos	0	0	0	0	0	25	100%
Pos O O C C C C C C C C	DAD/200	Neg	40	1	1	0	0	0	95.45%
BAR/300 BUP/10 BUP/10 Reg 40 Reg 4	BAR/200	Pos	0	0	2	2	3	42	100%
BUP/10 Neg 40	DAD/000	Neg	40	1	1	0	0	0	95.20%
BDP/10 BZO/200 Neg 40 0 1 0 0 0 0 93.2% Pos 0 0 0 3 2 2 4 3 100% BZO/300 BZO/300 Pos 0 0 0 3 1 6 34 100% Pos 0 0 0 3 1 6 34 100% Pos 0 0 0 1 4 1 53 100% Pos 0 0 0 1 4 1 53 100% COC/150 Pos 0 0 0 1 4 1 53 100% Reg 40 3 2 0 0 0 0 100% Pos 0 0 0 0 2 3 35 100% COT/200 Pos 0 0 0 0 2 2 1 7 7 79 94.60% EDDP/300 Reg 40 0 1 0 0 0 0 93.20% EDDP/300 Reg 40 0 1 0 0 0 0 93.20% Pos 0 0 0 3 5 2 33 100% ELG/500 Pos 0 0 0 3 5 2 33 100% Reg 40 0 1 0 0 0 0 99.86% FEN/20 Pos 0 0 0 3 5 2 33 100% FEN/20 Pos 0 0 0 3 3 5 2 33 100% FEN/20 Pos 0 0 0 3 3 5 2 33 100% FEN/20 Pos 0 0 0 3 3 5 2 33 100% FEN/20 Pos 0 0 0 0 3 3 3 40 97.87% FEN/20 Pos 0 0 0 1 3 3 3 40 97.87% FEN/20 Pos 0 0 0 1 3 3 3 46 100% FEN/5 Pos 0 0 0 1 3 3 3 46 100% FEN/5 Pos 0 0 0 1 3 3 3 46 100% FEN/5 Pos 0 0 0 1 3 3 3 46 100% RZ/110 Neg 40 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BAR/300	Pos	0	0	2	5	2	36	100%
Pos O O D 2 8 O 32 100%	DUD/40	Neg	40	1	1	0	0	0	95.50%
BZO/300 Pos O O O O O O O O O	BUP/10	Pos	0	0	2	8	0	32	100%
Pos O O O O O O O O O	DZO/200	Neg	40	0	1	0	0	0	93.2%
Pos O O O O O O O O O	BZU/200	Pos	0	0	3	2	2	43	100%
COC/150 Neg 40 0 3 1 6 34 100% Pos 0 0 0 1 4 1 53 100% Pos 0 0 0 1 4 1 53 100% Pos 0 0 0 0 2 3 35 100% COT/200 Pos 0 0 0 2 3 35 100% COT/200 Pos 0 0 0 2 3 35 100% Pos 0 2 2 1 7 79 94.60% Pos 0 0 1 0 0 0 0 93.20% EDDP/300 Pos 0 0 3 5 2 33 100% Pos 0 0 3 5 2 33 100% Pos 0 0 0 3 3 40 97.87% EIG/500 Pos 0 0 0 3 3 3 40 97.87% FEN/20 Pos 0 0 0 1 3 3 3 46 100% FEN/5 Pos 0 0 0 0 19 24 100% FEN/6 Pos 0 0 0 0 0 0 100% FEN/7 Pos 0 0 0 0 0 0 0 100% K2/10 Neg 40 0 0 0 0 0 0 100% K2+/10 Pos 0 0 0 0 0 0 0 97.87% KET/1000 Neg 40 19 2 0 0 0 0 97.87% MDDPV/1000 Neg 40 19 2 0 0 0 0 95.50% MDDPV/1000 Neg 40 1 0 0 0 0 0 95.50% MET/500 Neg 40 1 0 0 0 0 0 95.50% MET/1000 Neg 40 0 0 0 0 0 0 0 95.50% MTD/300 Neg 40 0 0 0 0 0 0 95.50% OPI/2000 Neg 40 1 0 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 0 0 0	DZO/200	Neg	40	0	1	0	0	0	93.20%
COC/150 Pos 0 0 0 1 4 4 1 53 100% COC/300 Neg 40 3 2 0 0 0 0 100% Pos 0 0 0 0 2 3 3 35 100% COT/200 Neg 146 7 1 2 3 0 97.40% EDDP/300 Neg 40 0 1 0 0 0 0 93.20% EDDP/300 Neg 40 0 1 0 0 0 0 0 93.20% EtG/500 Neg 44 3 2 1 0 0 0 99.06% FEN/20 Neg 100 3 2 0 0 0 0 0 99.06% FEN/20 Neg 10 27 0 0 0 0 0 0 99.06% FEN/5 Neg 10 27 0 0 0 0 0 0 0 00% R2/10 Neg 44 2 3 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	BZO/300	Pos	0	0	3	1	6	34	100%
COC/300 Neg 40 3 2 0 0 0 100% Pos 0 0 0 2 3 35 100% Pos 0 0 0 2 3 35 100% Pos 0 2 2 1 7 79 94.60% Pos 0 0 1 0 0 0 93.20% Pos 0 0 3 5 2 33 100% EIG/500 Pos 0 0 0 3 5 2 33 100% EIG/500 Pos 0 0 0 3 3 40 97.87% FEN/20 Neg 100 3 2 0 0 0 99.06% Pos 0 0 1 3 3 46 100% FEN/5 Pos 0 0 0 1 3 3 46 100% FEN/6 Pos 0 0 0 0 0 0 100% K2/10 Pos 0 0 0 0 0 0 0 0 K2+/10 Pos 0 0 0 0 0 0 0 97.87% KET/1000 Neg 44 2 3 1 0 0 0 97.88% KET/1000 Neg 40 1 1 0 0 0 0 0 0 MDPV/1000 Neg 40 0 0 0 0 0 0 0 MET/500 Neg 40 0 0 0 0 0 0 0 MET/500 Neg 40 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 1 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 MET/1000 Neg 40 0 0 0 0 0 0 0 MET/1000 Neg 40 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0 Neg 40 0 0 0 0 0 0 0 0	000/450	Neg	40	0	3	0	0	0	97.70%
COC/300 Pos 0 0 0 0 0 2 3 3 35 100% COT/200 Neg 146 7 1 2 3 0 97.40% Pos 0 2 2 2 1 7 7 79 94.60% EDDP/300 Neg 40 0 1 0 0 0 0 93.20% EDDP/300 Neg 44 3 2 1 0 0 0 ->99% Pos 0 0 0 3 3 5 2 33 100% Pos 0 0 0 0 3 3 3 40 97.87% FEN/20 Neg 100 3 2 0 0 0 0 99.06% Pos 0 0 0 1 3 3 46 100% FEN/5 Neg 10 27 0 0 0 0 0 99.06% FEN/5 Neg 10 27 0 0 0 0 0 100% K2/10 Neg 44 2 3 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	COC/150	Pos	0	0	1	4	1	53	100%
COTI/200 Neg 146 7	000/000	Neg	40	3	2	0	0	0	100%
COT/200 Pos 0 2 2 1 7 79 94.60% EDDP/300 Neg 40 0 1 0 0 0 93.20% Pos 0 0 0 3 5 2 33 100% EtG/500 Neg 44 3 2 1 0 0 >99% FEN/20 Neg 100 3 2 0 0 0 99.96% FEN/20 Neg 100 3 2 0 0 0 99.06% FEN/5 Neg 10 27 0 0 0 0 100% K2/10 Neg 40 0 0 0 0 0 100% K2+/10 Neg 44 2 3 1 0 0 >99.89% K2+/10 Neg 40 19 2 0 0 0 99.80% <td< td=""><td>COC/300</td><td>Pos</td><td>0</td><td>0</td><td>0</td><td>2</td><td>3</td><td>35</td><td>100%</td></td<>	COC/300	Pos	0	0	0	2	3	35	100%
Pos 0 2 2 1 7 79 94.60%	007/000	Neg	146	7	1	2	3	0	97.40%
EIDDP/300 Pos 0	CO1/200	Pos	0	2	2	1	7	79	94.60%
EtG/500 Neg	EDDD/000	Neg	40	0	1	0	0	0	93.20%
FEN/20	EDDP/300	Pos	0	0	3	5	2	33	100%
FEN/20	E10/500	Neg	44	3	2	1	0	0	>99%
FEN/20	EtG/500	Pos	0	0	0	3	3	40	97.87%
Pos 0 0 1 3 3 46 100%	EEN (OO	Neg	100	3	2	0	0	0	99.06%
FEN/5 Pos 0 0 0 0 19 24 100%	FEN/20	Pos	0	0	1	3	3	46	100%
Neg 40 0 0 0 0 0 19 24 100%	EEN/E	Neg	10	27	0	0	0	0	100%
K2/10 Pos 0 0 0 0 70 100% K2+/10 Neg 44 2 3 1 0 0 >99% KET/1000 Neg 40 19 2 0 0 0 97.8% MDMA/500 Neg 40 1 1 0 0 0 95.50% MDPV/1000 Neg 40 1 1 0 0 0 95.50% MDPV/1000 Neg 40 0 0 0 0 0 0 95.50% MET/500 Neg 40 0 0 0 0 0 0 100% MET/1000 Neg 40 1 0 0 0 0 0 0 0 93.20% MET/1000 Neg 40 1 0 0 0 0 0 0 95.50% MTD/300 Neg 40 0	FEN/5	Pos	0	0	0	0	19	24	100%
Neg 44 2 3 1 0 0 0 99%	160/40	Neg	40	0	0	0	0	0	100%
Neg 40 19 2 0 0 0 97.8%	K2/10	Pos	0	0	0	0	0	70	100%
Neg 40 19 2 0 0 0 95.30%	1/0 - /40	Neg	44	2	3	1	0	0	>99%
Neg 40 1 0 0 0 0 0 0 0 0	K2+/10	Pos	0	0	0	2	2	40	97.8%
MDMA/500	VET/4000	Neg	40	19	2	0	0	0	95.30%
MDMA/500 Pos 0 0 0 2 5 1 34 100% MDPV/1000 Pos 0 0 0 0 0 0 0 0 100% MET/500 MET/1000 MET/1000 MET/1000 MET/1000 MET/1000 MOS 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	KE1/1000	Pos	0	0	2	4	2	35	100%
MDPV/1000 Neg 40 0 0 0 0 0 0 100%	MDMA/500	Neg	40	1	1	0	0	0	95.50%
MDPV/1000 Pos 0 0 0 0 0 0 0 0 93.20% MET/500 Pos 0 0 0 3 1 3 51 100% MET/1000 Pos 0 0 0 3 1 3 51 100% MET/1000 Pos 0 0 0 0 2 3 40 100% MTD/300 Pos 0 0 2 0 0 0 95.50% MTD/300 Pos 0 0 2 4 0 37 100% OPI/300 Pos 0 0 3 4 0 53 100% OPI/2000 Neg 40 1 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 93.20% OXY/100 Neg 40 1 0 0 0 0 0 93.20%	MDMA/500	Pos	0	0	2	5	1	34	100%
MET/500	MDD)//4000	Neg	40	0	0	0	0	0	100%
MET/500 Pos 0 0 3 1 3 51 100% MET/1000 Neg 40 3 3 0 0 0 100% Pos 0 0 0 2 3 40 100% MTD/300 Pos 0 0 2 0 0 0 95.50% Pos 0 0 2 4 0 37 100% OPI/300 OPI/2000 Neg 40 0 1 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 93.20% OXY/100 Neg 40 1 0 0 0 0 0 93.20%	MDPV/1000	Pos	0	0	0	0	0	20	100%
MET/1000	MET/500	Neg	40	1	0	0	0	0	93.20%
ME1/1000 Pos 0 0 0 2 3 40 100% MTD/300	ME1/500	Pos	0	0	3	1	3	51	100%
Pos 0 0 0 0 2 3 40 100% MTD/300 Neg 40 0 2 0 0 0 0 95.50% Pos 0 0 2 4 0 37 100% OPI/300 Pos 0 0 1 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 0 93.20% OXV/100 Neg 40 1 0 0 0 0 0 93.20% OXV/100 Neg 40 1 0 0 0 0 0 93.20%	NAET/4000	Neg	40	3	3	0	0	0	100%
Pos 0 0 2 4 0 37 100% OPI/300 Neg 40 0 1 0 0 0 93.20% Pos 0 0 3 4 0 53 100% OPI/2000 Neg 40 1 0 0 0 0 93.20% Pos 0 0 2 4 3 40 100% OXY/100 Neg 40 1 0 0 0 93.20%	ME1/1000	Pos	0	0	0	2	3	40	100%
OPI/300	MTD/000	Neg	40	0	2	0	0	0	95.50%
OPI/300 Pos 0 0 3 4 0 53 100% OPI/2000 Neg 40 1 0 0 0 0 93.20% Pos 0 0 2 4 3 40 100% OXV/100 Neg 40 1 0 0 0 0 93.20%	MTD/300		0	0	2	4	0	37	100%
OPI/2000 Neg 40 1 0 0 0 0 93.20% OPI/2000 Neg 40 1 0 0 0 0 93.20% OXY/100 Neg 40 1 0 0 0 0 93.20%		Neg	40	0	1	0	0	0	93.20%
OPI/2000 Pos 0 0 2 4 3 40 100% OXV/100 Neg 40 1 0 0 0 0 93.20%	OPI/300	Pos	0	0	3	4	0	53	100%
OPI/2000 Pos 0 0 2 4 3 40 100% OXV/100 Neg 40 1 0 0 0 0 93.20%	0.00000	Neg	40	1	0	0	0	0	93.20%
OXY/100 3	OPI/2000		0	0	2	4	3	40	
1 ()XY/100	0)0":	Neg	40	1	0	0	0	0	93.20%
Pos 0 0 3 7 1 33 100%	OXY/100	_	0	0	3	7	1	33	100%
	PCP/25		40	0		0	0		97.70%

	Pos	0	0	1	3	8	33	100%
PPX/300	Neg	40	0	1	0	0	0	95.30%
PPX/300	Pos	0	0	2	5	2	33	100%
TCA/1000	Neg	40	0	2	0	0	0	95.50%
1CA/1000	Pos	0	0	2	5	7	28	100%
THC/20	Neg	40	22	6	2	0	0	98.55%
1110/20	Pos	0	0	1	1	5	46	96.3%
THC/50	Neg	40	1	2	0	0	0	97.70%
1110/30	Pos	0	0	1	4	7	44	100%
TRA/200	Neg	40	5	6	1	0	0	100%
1 KAV200	Pos	0	0	0	4	2	8	93.33%

B. ANALYTICAL SENSITIVITY/PRECISION

The Sensitivity/precision of the Know Drug Test Cup was evaluated by testing three lots of the test devices with spiked drug sample solutions on three consecutive days. Sample concentrations were confirmed by GC/MS, LC/MS and/or LC/MS/MS.

C. ANALYTICAL SPECIFICITY

The following compounds are detected positive in urine by the Know Drug Test Cup. Concentrations are given in ng/mL; percent cross-reactivity is shown in parentheses.

Compound	Conc. (%)	Compound	Conc. (%)
6-AM	40 (4000/)	Manustrius	- 400 000 (-0 40()
6-Acetylmorphine Diacetylmorphine (heroin)	10 (100%) 300 (3%)	Morphine Codeine	>100,000 (<0.1%) >100,000 (<0.1%)
Oxycodone	>100,000 (<0.1%)	Oxymorphone	>100,000 (<0.1%)
AMP300	× 100,000 (<0.170)	Oxymorphone	× 100,000 (<0.170)
D-Amphetamine	300 (100%)	MDA	1,000 (30%)
L-Amphetamine	27,500 (1.09%)	Phentermine	3,000 (10%)
AMP500	27,000 (1.0070)	1 Heriterinine	0,000 (1070)
D-Amphetamine	500 (100%)	MDA	8,000 (6.5%)
L-Amphetamine	50,000 (1%)	Phentermine	45,000 (1.1%)
AMP1000	,		,,,,,,
D-Amphetamine	1,000 (100%)	MDA	15,000 (6.7%)
L-Amphetamine	100,000 (1%)	Phentermine	100,000 (1.0%)
APAP			
Acetaminophen	5000(100%)		
BAR200			
Secobarbital	200 (100%)	Butalbital	200 (100%)
Amobarbital	1,660 (12%)	Cyclopentobarbital	330 (66.7%)
Aprobarbital	330 (66.7%)	Phenobarbital	200 (100%)
Butabarbital	60 (333%)		
BAR300			
Secobarbital	300 (100%)	Butalbital	300 (100%)
Amobarbital	2,500 (12%)	Cyclopentobarbital	500 (60%)
Aprobarbital	500 (60%)	Phenobarbital	300 (100%)
Butabarbital BUP	100 (300%)	Pentobarbital	250 (120%)
Buprenorphine	10 (100%)	Norbuprenorphine	7.5 (133%)
Buprenorphine-3-β-D-	3.5 (286%)	Norbuprenorphine-	35 (28%)
glucuronide	3.3 (20070)	glucuronide	33 (2070)
BZO 200		giacaroniae	
Oxazepam	200 (100%)	α-Hydroxyalprazolam	1,300 (15.3%)
Alprazolam	130 (153%)	Lorazepam	2,600 (7.7%)
Bromazepam	650 (30.7%)	Lorazepam-glucuronide	3,500 (5.7%)
Clobazam	130 (153.8%)	Nitrazepam	160 (125%)
Clorazepate	500 (40%)	Norchlordiazepoxide	330 (60.6%)
		2	(/

Desalkylflurazepam Diazepam	800 (25%) 650 (30.7%)	Nordazepam Temazepam	260 (76.9%) 100 (200%)
Flunitrazepam BZO300	160 (125%)	Triazolam	1,650 (12.1%)
Oxazepam Alprazolam	300 (100%) 200 (150%)	α-Hydroxyalprazolam Lorazepam	1,900 (15.8%) 3,900 (7.7%)
Bromazepam	1,000 (30%)	Lorazepam-glucuronide	5,000 (6%)
Clobazam	200 (150%)	Nitrazepam	250 (120%)
Clorazepate	750 (40%)	Norchlordiazepoxide Nordazepam	500 (60%) 390 (76.9%)
Desalkylflurazepam Diazepam	1,200 (25%) 1,000 (30%)	Temazepam	150 (200%)
Flunitrazepam	250 (120%)	Triazolam	2,500 (12%)
COC150	200 (12070)	mazolam	2,000 (1270)
Benzoylecgonine	150 (100%)	Cocaine	5,000 (3%)
Cocaethylene	50,000 (0.3%)	Ecgonine	50,000 (0.3%)
COC300	, ,	-	
Benzoylecgonine	300 (100%)	Cocaine	10,000 (3%)
Cocaethylene	100,000 (0.3%)	Ecgonine	100,000 (0.3%)
СОТ			
(-)-Cotinine	200 (100%)	S(-)-Nicotine	>100,000(<0.2%)
Trans-3´-hydroxycotinine	200 (100%)	(R,S)-Norcotine	30,000(0.67%)
EDDP	200 (4000/)	MTD	> 100 000 (>0 20()
EtG	300 (100%)	WID	>100,000 (<0.3%)
Ethyl glucuronide	500 (100%)		
FEN20	000 (10070)		
Norfentanyl(calibrator)	20 (100%)	Fentanyl(parent drug)	1,000 (2%)
Alfentanil	>100,000(>0.02%)	Sufentanii	>10,000(>0.2%)
Carfentanil	>10,000(>0.2%)		
FEN5			
Norfentanyl(calibrator)	5 (100%)	Fentanyl(parent drug)	10,000 (0.05%)
Acetyl norfentanyl	250(2.50%)	para-Fluorobutyryl fentanyl	10,000 (0.05%)
Acetyl norfentanyl Alfentanil			
Acetyl norfentanyl Alfentanil K2 10	250(2.50%) 5,000(0.05%)	para-Fluorobutyryl fentanyl	10,000 (0.05%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid	250(2.50%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid	
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite	250(2.50%) 5,000(0.05%) 10 (100%)	para-Fluorobutyryl fentanyl	10,000 (0.05%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid	250(2.50%) 5,000(0.05%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite	10,000 (0.05%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid	250(2.50%) 5,000(0.05%) 10 (100%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic	10,000 (0.05%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite	10,000 (0.05%) 10 (100%) 35 (28.57%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 073 N-(4-	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH 200 6-Hydroxyindole	10,000 (0.05%) 10 (100%) 35 (28.57%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH 200 6-Hydroxyindole metabolite	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-018 4-Hydroxypentyl	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH 200 6-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-018 4-Hydroxypentyl metabolite	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%) 250 (4%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH 200 6-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%) 300 (3.33%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-018 4-Hydroxypentyl metabolite JWH-073 N-(3-	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH 200 6-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite AM2201 N-(4-	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-018 4-Hydroxypentyl metabolite JWH-073 N-(3- Hydroxybutyl) metabolite	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%) 250 (4%) 400 (2.5%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH 200 6-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite AM2201 N-(4- Hydroxypentyl) metabolite	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%) 300 (3.33%) 500 (2%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-018 4-Hydroxypentyl metabolite JWH-073 N-(3- Hydroxybutyl) metabolite JWH-018 5-Hydroxypentyl	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%) 250 (4%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH 200 6-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite AM2201 N-(4- Hydroxypentyl) metabolite JWH 122 N-(4-	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%) 300 (3.33%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-018 4-Hydroxypentyl metabolite JWH-073 N-(3- Hydroxybutyl) metabolite	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%) 250 (4%) 400 (2.5%) 600 (1.67%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH-073 4-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite AM2201 N-(4- Hydroxypentyl) metabolite JWH 122 N-(4- Hydroxypentyl) metabolite	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%) 300 (3.33%) 500 (2%) 650 (1.54%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-018 4-Hydroxypentyl metabolite JWH-073 N-(3- Hydroxybutyl) metabolite JWH-018 5-Hydroxypentyl metabolite	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%) 250 (4%) 400 (2.5%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH 200 6-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite AM2201 N-(4- Hydroxypentyl) metabolite JWH 122 N-(4-	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%) 300 (3.33%) 500 (2%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-018 4-Hydroxypentyl metabolite JWH-073 N-(3- Hydroxybutyl) metabolite JWH-018 5-Hydroxypentyl metabolite JWH-073 N-(2- Hydroxybutyl) metabolite JWH-073 N-(2- Hydroxybutyl) metabolite JWH-018	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%) 250 (4%) 400 (2.5%) 600 (1.67%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH-073 4-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite JWH-073 1 N-(4- Hydroxypentyl) metabolite JWH 122 N-(4- Hydroxypentyl) metabolite JWH-019 6-Hydroxylexyl	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%) 300 (3.33%) 500 (2%) 650 (1.54%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 73 N-(4- Hydroxybutyl) metabolite JWH-018 4-Hydroxypentyl metabolite JWH-073 N-(3- Hydroxybutyl) metabolite JWH-018 5-Hydroxypentyl metabolite JWH-018 N-(2- Hydroxybutyl) metabolite JWH 073 N-(2- Hydroxybutyl) metabolite JWH-018 RCS-4 N-(5-	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%) 250 (4%) 400 (2.5%) 600 (1.67%) 1,000 (1%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite JWH-201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH-073 4-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite AM2201 N-(4- Hydroxypentyl) metabolite JWH-019 6-Hydroxyhexyl metabolite JWH-019 5-Hydroxyhexyl metabolite	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%) 300 (3.33%) 500 (2%) 650 (1.54%) 1,000 (1%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-073 N-(3- Hydroxybutyl) metabolite JWH-073 N-(3- Hydroxybutyl) metabolite JWH-018 5-Hydroxypentyl metabolite JWH-018 5-Hydroxypentyl metabolite JWH-018 N-(2- Hydroxybutyl) metabolite JWH-018 RCS-4 N-(5- Carboxypentyl) metabolite	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%) 250 (4%) 400 (2.5%) 600 (1.67%) 1,000 (1%) 1,000 (1%) 2,000 (0.5%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH 200 6-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite AM2201 N-(4-Hydroxypentyl) metabolite JWH-019 6-Hydroxyhexyl metabolite JWH-019 6-Hydroxyhexyl metabolite JWH-019 5-Hydroxyhexyl metabolite JWH-019 5-Hydroxyhexyl metabolite JWH-122 5-Hydroxypentyl	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%) 300 (3.33%) 500 (2%) 650 (1.54%) 1,000 (1%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-018 4-Hydroxypentyl metabolite JWH-018 73 N-(3- Hydroxybutyl) metabolite JWH-018 5-Hydroxypentyl metabolite JWH-073 N-(2- Hydroxybutyl) metabolite JWH-018 RCS-4 N-(5- Carboxypentyl) metabolite JWH-018 RCS-4 N-(5- Carboxypentyl) metabolite JWH-210 5-Hydroxypentyl	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%) 250 (4%) 400 (2.5%) 600 (1.67%) 1,000 (1%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH 200 6-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite AM2201 N-(4- Hydroxypentyl) metabolite JWH-122 N-(4- Hydroxypentyl) metabolite JWH-019 6-Hydroxyhexyl metabolite JWH-019 5-Hydroxyhexyl metabolite JWH-019 5-Hydroxyhexyl metabolite JWH-122 5-Hydroxypentyl metabolite	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%) 300 (3.33%) 500 (2%) 650 (1.54%) 1,000 (1%) 1,000 (1%) 2,500 (0.4%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 398 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-018 4-Hydroxypentyl metabolite JWH-073 N-(3- Hydroxybutyl) metabolite JWH-018 5-Hydroxypentyl metabolite JWH-018 73 N-(2- Hydroxybutyl) metabolite JWH-018 RCS-4 N-(5- Carboxypentyl) metabolite JWH-210 5-Hydroxypentyl metabolite	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%) 250 (4%) 400 (2.5%) 600 (1.67%) 1,000 (1%) 2,000 (0.5%) >10,000 (<0.1%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH-073 4-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite AM2201 N-(4-Hydroxypentyl) metabolite JWH-122 N-(4-Hydroxypentyl) metabolite JWH-019 6-Hydroxyhexyl metabolite JWH-019 5-Hydroxyhexyl metabolite JWH-122 5-Hydroxypentyl metabolite JWH-125 5-Hydroxypentyl metabolite JWH-250 5-Hydroxypentyl	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%) 300 (3.33%) 500 (2%) 650 (1.54%) 1,000 (1%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 073 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-073 N-(3- Hydroxybutyl) metabolite JWH-073 N-(3- Hydroxybutyl) metabolite JWH-018 5-Hydroxypentyl metabolite JWH-018 5-Hydroxypentyl metabolite JWH-018 N-(2- Hydroxybutyl) metabolite JWH-018 RCS-4 N-(5- Carboxypentyl) metabolite JWH-210 5-Hydroxypentyl metabolite JWH-210 5-Hydroxypentyl metabolite JWH-073	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%) 250 (4%) 400 (2.5%) 600 (1.67%) 1,000 (1%) 1,000 (1%) >10,000 (<0.1%) >10,000 (<0.1%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH 200 6-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite AM2201 N-(4-Hydroxypentyl) metabolite JWH-019 6-Hydroxyhexyl metabolite JWH-019 5-Hydroxyhexyl metabolite JWH-019 5-Hydroxyhexyl metabolite JWH-122 5-Hydroxypentyl metabolite JWH-250 5-Hydroxypentyl metabolite	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%) 300 (3.33%) 500 (2%) 650 (1.54%) 1,000 (1%) 2,500 (0.4%) >10,000 (<0.1%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-018 4-Hydroxypentyl metabolite JWH-073 N-(3- Hydroxybutyl) metabolite JWH-018 5-Hydroxypentyl metabolite JWH-018 5-Hydroxypentyl metabolite JWH-073 N-(2- Hydroxybutyl) metabolite JWH-018 RCS-4 N-(5- Carboxypentyl) metabolite JWH-210 5-Hydroxypentyl metabolite JWH-210 5-Hydroxypentyl metabolite JWH-273 JWH-273 JWH-210 4-Hydroxypentyl	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%) 250 (4%) 400 (2.5%) 600 (1.67%) 1,000 (1%) 2,000 (0.5%) >10,000 (<0.1%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH 200 6-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite AM2201 N-(4- Hydroxypentyl) metabolite JWH-019 6-Hydroxyhexyl metabolite JWH-019 5-Hydroxyhexyl metabolite JWH-019 5-Hydroxyhexyl metabolite JWH-122 5-Hydroxypentyl metabolite JWH-250 5-Hydroxypentyl metabolite JWH-250 5-Hydroxypentyl metabolite JWH-250 5-Hydroxypentyl metabolite JWH-250 5-Hydroxypentyl metabolite 5-Fluoro PB-22 3-	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%) 300 (3.33%) 500 (2%) 650 (1.54%) 1,000 (1%) 1,000 (1%) 2,500 (0.4%)
Acetyl norfentanyl Alfentanil K2 10 JWH-018 5-Pentanoic acid metabolite JWH 018 N-Propanoic acid metabolite JWH 073 N-Pentanoic acid metabolite JWH 073 N-(4- Hydroxybutyl) metabolite JWH-073 N-(3- Hydroxybutyl) metabolite JWH-073 N-(3- Hydroxybutyl) metabolite JWH-018 5-Hydroxypentyl metabolite JWH-018 5-Hydroxypentyl metabolite JWH-018 N-(2- Hydroxybutyl) metabolite JWH-018 RCS-4 N-(5- Carboxypentyl) metabolite JWH-210 5-Hydroxypentyl metabolite JWH-210 5-Hydroxypentyl metabolite JWH-073	250(2.50%) 5,000(0.05%) 10 (100%) 15 (66.67%) 60 (16.67%) 200 (5%) 250 (4%) 400 (2.5%) 600 (1.67%) 1,000 (1%) 1,000 (1%) >10,000 (<0.1%) >10,000 (<0.1%)	para-Fluorobutyryl fentanyl JWH-073 4-Butanoic acid metabolite MAM2201 N-Pentanoic acid metabolite JWH 210 N-Pentanoic acid metabolite JWH 200 6-Hydroxyindole metabolite JWH-073 4-Hydroxybutyl metabolite AM2201 N-(4-Hydroxypentyl) metabolite JWH-019 6-Hydroxyhexyl metabolite JWH-019 5-Hydroxyhexyl metabolite JWH-019 5-Hydroxyhexyl metabolite JWH-122 5-Hydroxypentyl metabolite JWH-250 5-Hydroxypentyl metabolite	10,000 (0.05%) 10 (100%) 35 (28.57%) 100 (10%) 200 (5%) 300 (3.33%) 500 (2%) 650 (1.54%) 1,000 (1%) 2,500 (0.4%) >10,000 (<0.1%)

metabolite MDMB-CHMINACA	>100 000 (>0 01%)	metabolite	
K2+ 10	>100,000 (<0.01%)		
AB-PINACA pentanoic acid	10 (100%)	PX 1	>100,000 (<0.01%)
metabolite		MN-18	>100,000 (<0.01%)
AB-PINACA AB-PINACA 4-	400 (2.5%)	PX 2 5-fluoro ADB-PINACA	>100,000 (<0.01%)
Hydroxypentyl metabolite	25 (40%)	5-fluoro AEB	100,000 (0.01%) >100,000 (<0.01%)
AM2201 4-Hydroxypentyl	20 (1070)	APINACA	100,000 (0.0170)
metabolite	>10,000 (<0.1%)	APINACA 5-Hydroxypentyl	>10,000 (<0.1%)
AB-FUBINACA MMB-FUBINACA	250 (4%) >10,000 (<0.01%)	metabolite AM2201 N-(4-	>10,000 (<0.1%)
AB-PINACA 5-Pentanoic	>10,000 (<0.01%)	hydroxypentyl) metabolite	>100,000 (<0.01%) >100,000 (<0.01%)
acid metabolite	10 (100%)	BB-22 3-carboxyindole	100,000 (0.0170)
ADB-PINACA N-(4-	///	metabolite	>100,000 (<0.01%)
hydroxypentyl) metabolite	25 (40%)	5-fluoro PB-22 3-	>100,000 (>0,010/)
ADB-PINACA N-(5- hydroxypentyl) metabolite	25 (40%)	carboxyindole metabolite 5-fluoro MN-18	>100,000 (<0.01%)
5-fluoro AB-PINACA N-(4-	20 (1070)	AB-CHMINACA metabolite	
hydroxypentyl) metabolite	25 (40%)	M2	>100,000 (<0.01%)
AB-PINACA N-(5-	OF (400/)	5-fluoro ADB	>100,000 (<0.01%)
hydroxypentyl) metabolite AB-PINACA N-(4-	25 (40%)	CUMYL-THPINACA 5-fluoro AB-PINACA	>100,000 (<0.01%) 100,000 (0.01%)
hydroxypentyl) metabolite	25 (40%)	ADB-PINACA pentanoic	100,000 (0.0170)
.,,,	, ,	acid metabolite	100 (10%)
I/FT 1000		CUMYL-PICA	>100,000 (<0.01%)
KET 1000 Ketamine	1,000 (100%)		
MDMA	1,000 (10070)		
(+/-)-MDMA	500 (100%)		
(+/-)-MDA	3,900 (12.8%)	(+/-)-MDEA	500 (100%)
MDPV			
(+/-)-MDPV	1000 (100%)	Buphedrone	>10,000 (<0.01%)
Methcathinone	>10,000 (<0.01%)	Pentedrone Methylone	>10,000 (<0.01%) >10,000 (<0.01%)
MET500		Wellylone	> 10,000 (<0.0170)
D-Methamphetamine	500 (100%)	MDEA	30,000 (1.7%)
D-Amphetamine	50,000 (1%)	MDMA	3,500 (14.3%)
L-Amphetamine	50,000 (1%)	Mephentermine	75,000 (0.7%)
1R,2S(-)-Ephedrine	100,000 (0.5%)		
MET 1000 D-Methamphetamine	1.000 (1000/)	1D 2C() Enhadring	> 100 000 (>0 E0/)
L-Methamphetamine	1,000 (100%) 30,000 (3.3%)	1R,2S(-)-Ephedrine MDEA	>100,000 (<0.5%) 60,000 (1.7%)
D-Amphetamine	100,000 (1%)	MDMA	8,000 (12.5%)
L-Amphetamine	100,000 (1%)	Mephentermine	100,000 (1%)
MTD			
Methadone	300 (100%)		
OPI300 Morphine	200 (100%)	Levorphanol	10.000 (20/.)
6-Acetylmorphine	300 (100%) 85 (352.9%)	Morphine 3-glucuronide	10,000 (3%) 7,500 (4%)
Codeine	100 (300%)	Norcodeine	30,000 (1%)
Codein-6beta-Glucuronide	150 (200%)	Oxycodone	70,000 (0.43%)
Ethylmorphine	150 (200%)	Thebaine	20,000 (1.5%)
Diacetylmorphine	900 (33.33%)	Oxymorphone-3beta-	>10,000 (<3%)
Hydrocodone	500 (60%)	Glucuronide	
Hydromorphone OPI2000	600 (50%)		
Morphine	2,000 (100%)	Hydromorphone	5,000 (40%)
6-Acetylmorphine	700 (285.7%)	Morphine-3-glucuronide	2,600 (76.9%)
Codeine	1,800 (111.1%)	Oxycodone	70,000 (2.9%)
		0	

Diacetylmorphine Hydrocodone	11,000 (18.2%) 5,000 (40%)	medane	33,000 (2.170)
OXY			
Oxycodone	100 (100%)	Hydrocodone	5,000 (2%)
Codeine	50,000 (0.2%)	Hydromorphone	25,000 (0.4%)
Ethylmorphine PCP	50,000 (0.2%)	Oxymorphone	12,500 (0.8%)
Phencyclidine PPX	25 (100%)	4-Hydroxy-PCP	1,500 (1.7%)
Propoxyphene	300 (100%)	Norpropoxyphene	300 (100%)
TCA	4 000 (4000)	Din.	4 000 (4000()
Nortriptyline	1,000 (100%)	Doxepine	1,000 (100%)
Amitriptyline	4,000 (25%)	Imipramine	1,000 (100%)
Clomipramine	2,000 (50%)	Promethazine	1,000 (100%)
Desipramine	500 (200%)	Trimipramine	5,000 (20%)
THC 20			
11-nor-∆9-THC-9-COOH	20 (100%)	Δ8-THC	>100,000 (<0.02%)
(+/-)-11-Hydroxy-∆9-THC Cannabinol	10,000 (0.2%) >100,000(<0.02%)	∆9-THC Cannabidiol	25,000 (0.08%) >100,000(<0.02%)
THC50			
11-nor-∆9-THC-9-COOH	50 (100%)	(-)-∆ ⁸ -THC	20,000 (0.3%)
(+/-)-11-Hydroxy-∆9-THC	5,000 (1%)	(-)-∆ ⁹ -THC	20,000 (0.3%)
		Cannabinol	>100,000 (<0.05%)
		Cannabidiol	>100,000 (<0.05%)
TRA 200			. (/
cis-Tramadol	200 (100%)	N-Desmethyl-cis-Tramadol	800 (25%)
O-Desmethyl-cis-Tramadol	15,000 (1.33%)	O-Desmethylvenlafaxine	>10,000 (<2%)
	,		, (= /0)

Thebaine

95.000 (2.1%)

1.500 (133.3%)

>100,000 (<0.2%)

D. INTERFERENCE

Venlafaxine

Ethylmorphine

The following compounds were evaluated for potential positive or negative interference with the Know Drug Test Cup. All compounds were dissolved in drug control solutions 50% below and 50% above their respective cutoff concentrations and tested with the Know Drug Test Cup. An unaltered sample was used as control. No interference was found for following compounds at a concentration of 100 µg/mL.

Acetaminophen	Dextromethorphan	Isoxsuprine	β-Phenylethylamine
Acetone	Diclofenac	Kanamycin	Procaine
Acetophenetidin	Dicyclomine	Ketoprofen	Promethazine
Aspirin	Diflunisal	Labetalol	Quinacrine
Albumin	Digoxin	Lidocaine	Quinidine
Amoxapine	4-Dimethylaminoan tipyrine	Lindane	Ranitidine
Amoxicillin	Diphenhydramine	Loperamide	Riboflavin
Ampicillin	5,5-Diphenylhydantoin	Meperidine	Sodium chloride
Ascorbic acid	Disopyramide	Methoxyphenamine	Sulfamethazine
Aspartame	Doxylamine	Metoprolol	Sulindac
Atropine	Dopamine	Nalidixic acid	Temazepam
Benzoic acid	(1R, 2S) - (-)-Ephedrine	(+)-Naproxen	Tetracycline
Bilirubin	Erythromycin	Nimesulide	Tetrahydrozoline
(+/-) Brompheniramine	Ethanol (Ethyl alcohol)	Norethindrone	Thebaine
Benzocaine	Etodolac	Noscapine	Theophylline
Buspirone	Famprofazone	Niacinamide	Thiamine
Caffeine	Fenoprofen	Norephedrine	Thioridazine
Chloramphenicol	Fluoxetine Hydrochloride	Orphenadrine	Tolbutamide

Chloroquine	Furosemide	Oxalic acid	Trazodone
(+/-)- Chlorpheniramine	Gentisic acid	Oxolinic acid	Triamterene
S- (+)- Chlorpheniramine maleate salt	D (+) Glucose	Oxymetazoline	Trifluoperazine
Chlorpromazine	Guaiacol Glyceryl Ether	Papaverine	Trimethoprim
Chlorprothixene	Hemoglobin	Pemoline	Trimipramine
Cimetidine	Hydralazine	Penicillin-G	Tryptamine
Clomipramine	Hydrochlorothiazide	Perphenazine	Tyramine
Clonidine	Hydroxyzine	Phenelzine	Uric acid
Creatine	Imipramine	Pheniramine	Verapamil
Cyclobenzaprine	Isoproterenol hydrochloride	Phenothiazine	Zomepirac

Clinical specimens are evaluated for potential positive or negative interference with each test strip lot contained within the Know Drug Test Cup. No false positive or false negative results were observed with the following clinical specimens: Zantac (ranitidine), Zoloft (sertraline), Protonix (pantoprazole), Strattera (atomoxetine), Aleve (naproxen), Neurontin (gabapentin), Lyrica (pregabalin).

BIBLIOGRAPHY

- Ambre J. The urinary excretion of cocaine and metabolites in humans: a kinetic analysis of published data. J Anal Toxicol. 1985 Nov-Dec;9(6):241-5.
- Hawks RL, Chiang CN. Examples of specific drug assays. NIDA Res Monogr. 1986;73:84-112.
- Tietz NW, editor. Textbook of Clinical Chemistry. 1st ed. Philadelphia: WB Saunders Co; 1986. p 1735.
- Food and Drug Administration. Premarket Submissions and Labeling Recommendations for Drugs of Abuse Screening Tests - Draft Guidance for Industry and FDA Staff. 2005
- DeCresce RP, Mazura A, Lifshitz M, Tilson J. Drug Testing in the Workplace. 1st ed. Chicago: American Society of Clinical Pathologists (ASCP) Press; 1988. 278 p.
- Baselt RC. Disposition of Toxic Drugs and Chemicals in Man. 10th ed. Seal Beach, CA: Biomedical Pub

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