



**Know Drug  
Test Cup™**  
When you need to know

## **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:

| <b>Abbreviation</b> | <b>Class</b>    | <b>Calibrator</b>                                 | <b>Cutoff(ng/ml)</b> |
|---------------------|-----------------|---|----------------------|
| 6AM                 | Heroin          | 6-Acetyl morphine                                 | 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         | Benzoyllecgonine                                  | 150                  |
| COC300              | Cocaine         | Benzoyllecgonine                                  | 300                  |
| COT                 | Nicotine        | Cotinine  | 200                  |
| EDDP                | Methadone       | 2-ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine | 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- $\Delta^9$ -THC-COOH                      | 20                   |
| THC50               | Marijuana       | 11-nor- $\Delta^9$ -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).



- 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.

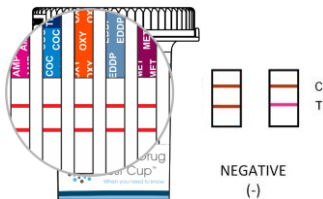
## RESULT INTERPRETATION

### 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.

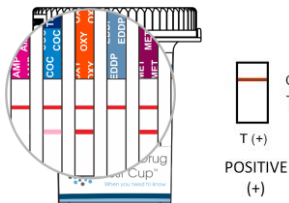
The red or pink line next to the "T" (drug test line) under the drug name indicates a negative result for that drug. If a test line appears next to the "T" for all drugs, the sample is considered negative. Certain lines may appear lighter or thinner than other lines.



### 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.

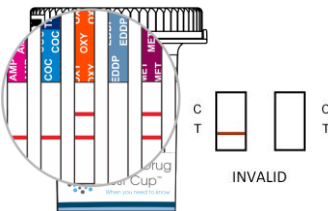
*The illustration to the right shows preliminary positive results for the first strip and the fourth strip, but negative for all other drugs.*



### Invalid Result:

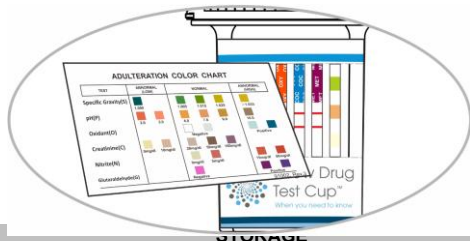
A colored line (Control Line) should always appear next to the letter "C" on every test strip. If no control line appears on any of test strips, the result is invalid.

*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**

| Drug Test/Cutoff (ng/ml) | Result | Drug-free | Range of GC/MS (or the like) Data |           |                |                  |           | % Agreement |
|--------------------------|--------|-----------|-----------------------------------|-----------|----------------|------------------|-----------|-------------|
|                          |        |           | -50% - <-25% C/O                  | -25% -C/O | C/O - +25% C/O | >+25% - +50% C/O | >+50% C/O |             |
| 6-AM/10                  | Neg    | 40        | 4                                 | 1         | 0              | 0                | 0         | 100%        |
|                          | Pos    | 0         | 0                                 | 0         | 1              | 4                | 35        | 100%        |
| AMP/300                  | Neg    | 40        | 0                                 | 0         | 0              | 0                | 0         | 100%        |
|                          | Pos    | 0         | 0                                 | 0         | 0              | 0                | 52        | 100%        |
| AMP/500                  | Neg    | 40        | 3                                 | 0         | 0              | 0                | 0         | 97.70%      |
|                          | 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%        |

|           |     |     |    |   |   |    |    |        |
|-----------|-----|-----|----|---|---|----|----|--------|
| APAP/5000 | Neg | 35  | 0  | 0 | 0 | 0  | 0  | 100%   |
|           | Pos | 0   | 0  | 0 | 0 | 0  | 25 | 100%   |
| BAR/200   | Neg | 40  | 1  | 1 | 0 | 0  | 0  | 95.45% |
|           | Pos | 0   | 0  | 2 | 2 | 3  | 42 | 100%   |
| BAR/300   | Neg | 40  | 1  | 1 | 0 | 0  | 0  | 95.20% |
|           | Pos | 0   | 0  | 2 | 5 | 2  | 36 | 100%   |
| BUP/10    | Neg | 40  | 1  | 1 | 0 | 0  | 0  | 95.50% |
|           | Pos | 0   | 0  | 2 | 8 | 0  | 32 | 100%   |
| BZO/200   | Neg | 40  | 0  | 1 | 0 | 0  | 0  | 93.2%  |
|           | Pos | 0   | 0  | 3 | 2 | 2  | 43 | 100%   |
| BZO/300   | Neg | 40  | 0  | 1 | 0 | 0  | 0  | 93.20% |
|           | Pos | 0   | 0  | 3 | 1 | 6  | 34 | 100%   |
| COC/150   | Neg | 40  | 0  | 3 | 0 | 0  | 0  | 97.70% |
|           | Pos | 0   | 0  | 1 | 4 | 1  | 53 | 100%   |
| COC/300   | Neg | 40  | 3  | 2 | 0 | 0  | 0  | 100%   |
|           | Pos | 0   | 0  | 0 | 2 | 3  | 35 | 100%   |
| COT/200   | Neg | 146 | 7  | 1 | 2 | 3  | 0  | 97.40% |
|           | Pos | 0   | 2  | 2 | 1 | 7  | 79 | 94.60% |
| EDDP/300  | Neg | 40  | 0  | 1 | 0 | 0  | 0  | 93.20% |
|           | Pos | 0   | 0  | 3 | 5 | 2  | 33 | 100%   |
| EtG/500   | Neg | 44  | 3  | 2 | 1 | 0  | 0  | >99%   |
|           | 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     | Neg | 10  | 27 | 0 | 0 | 0  | 0  | 100%   |
|           | Pos | 0   | 0  | 0 | 0 | 19 | 24 | 100%   |
| K2/10     | Neg | 40  | 0  | 0 | 0 | 0  | 0  | 100%   |
|           | Pos | 0   | 0  | 0 | 0 | 0  | 70 | 100%   |
| K2+/10    | Neg | 44  | 2  | 3 | 1 | 0  | 0  | >99%   |
|           | Pos | 0   | 0  | 0 | 2 | 2  | 40 | 97.8%  |
| KET/1000  | Neg | 40  | 19 | 2 | 0 | 0  | 0  | 95.30% |
|           | Pos | 0   | 0  | 2 | 4 | 2  | 35 | 100%   |
| MDMA/500  | Neg | 40  | 1  | 1 | 0 | 0  | 0  | 95.50% |
|           | Pos | 0   | 0  | 2 | 5 | 1  | 34 | 100%   |
| MDPV/1000 | Neg | 40  | 0  | 0 | 0 | 0  | 0  | 100%   |
|           | Pos | 0   | 0  | 0 | 0 | 0  | 20 | 100%   |
| MET/500   | Neg | 40  | 1  | 0 | 0 | 0  | 0  | 93.20% |
|           | 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   | Neg | 40  | 0  | 2 | 0 | 0  | 0  | 95.50% |
|           | 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  | 0  | 93.20% |
|           | Pos | 0   | 0  | 3 | 7 | 1  | 33 | 100%   |
| PCP/25    | Neg | 40  | 0  | 3 | 0 | 0  | 0  | 97.70% |

|          |     |    |    |   |   |   |    |        |
|----------|-----|----|----|---|---|---|----|--------|
|          | Pos | 0  | 0  | 1 | 3 | 8 | 33 | 100%   |
| PPX/300  | Neg | 40 | 0  | 1 | 0 | 0 | 0  | 95.30% |
|          | Pos | 0  | 0  | 2 | 5 | 2 | 33 | 100%   |
| TCA/1000 | Neg | 40 | 0  | 2 | 0 | 0 | 0  | 95.50% |
|          | Pos | 0  | 0  | 2 | 5 | 7 | 28 | 100%   |
| THC/20   | Neg | 40 | 22 | 6 | 2 | 0 | 0  | 98.55% |
|          | Pos | 0  | 0  | 1 | 1 | 5 | 46 | 96.3%  |
| THC/50   | Neg | 40 | 1  | 2 | 0 | 0 | 0  | 97.70% |
|          | Pos | 0  | 0  | 1 | 4 | 7 | 44 | 100%   |
| TRA/200  | Neg | 40 | 5  | 6 | 1 | 0 | 0  | 100%   |
|          | 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. (%)        |
|---------------------------------|------------------|------------------------------|------------------|
| <b>6-AM</b>                     |                  |                              |                  |
| 6-Acetylmorphine                | 10 (100%)        | Morphine                     | >100,000 (<0.1%) |
| Diacetylmorphine (heroin)       | 300 (3%)         | Codeine                      | >100,000 (<0.1%) |
| Oxycodone                       | >100,000 (<0.1%) | Oxymorphone                  | >100,000 (<0.1%) |
| <b>AMP300</b>                   |                  |                              |                  |
| D-Amphetamine                   | 300 (100%)       | MDA                          | 1,000 (30%)      |
| L-Amphetamine                   | 27,500 (1.09%)   | Phentermine                  | 3,000 (10%)      |
| <b>AMP500</b>                   |                  |                              |                  |
| D-Amphetamine                   | 500 (100%)       | MDA                          | 8,000 (6.5%)     |
| L-Amphetamine                   | 50,000 (1%)      | Phentermine                  | 45,000 (1.1%)    |
| <b>AMP1000</b>                  |                  |                              |                  |
| D-Amphetamine                   | 1,000 (100%)     | MDA                          | 15,000 (6.7%)    |
| L-Amphetamine                   | 100,000 (1%)     | Phentermine                  | 100,000 (1.0%)   |
| <b>APAP</b>                     |                  |                              |                  |
| Acetaminophen                   | 5000(100%)       |                              |                  |
| <b>BAR200</b>                   |                  |                              |                  |
| Secobarbital                    | 200 (100%)       | Butalbital                   | 200 (100%)       |
| Amobarbital                     | 1,660 (12%)      | Cyclopentobarbital           | 330 (66.7%)      |
| Aprobarbital                    | 330 (66.7%)      | Phenobarbital                | 200 (100%)       |
| Butabarbital                    | 60 (333%)        |                              |                  |
| <b>BAR300</b>                   |                  |                              |                  |
| Secobarbital                    | 300 (100%)       | Butalbital                   | 300 (100%)       |
| Amobarbital                     | 2,500 (12%)      | Cyclopentobarbital           | 500 (60%)        |
| Aprobarbital                    | 500 (60%)        | Phenobarbital                | 300 (100%)       |
| Butabarbital                    | 100 (300%)       | Pentobarbital                | 250 (120%)       |
| <b>BUP</b>                      |                  |                              |                  |
| Buprenorphine                   | 10 (100%)        | Norbuprenorphine             | 7.5 (133%)       |
| Buprenorphine-3-β-D-glucuronide | 3.5 (286%)       | Norbuprenorphine-glucuronide | 35 (28%)         |
| <b>BZO 200</b>                  |                  |                              |                  |
| 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%)      |

|                                       |                   |   |                   |
|---------------------------------------|-------------------|---|-------------------|
| Desalkylflurazepam                    | 800 (25%)         | Nordazepam                                | 260 (76.9%)       |
| Diazepam                              | 650 (30.7%)       | Temazepam                                 | 100 (200%)        |
| Flunitrazepam                         | 160 (125%)        | Triazolam                                 | 1,650 (12.1%)     |
| <b>BZO300</b>                         |                   |   |                   |
| Oxazepam                              | 300 (100%)        | α-Hydroxyalprazolam                       | 1,900 (15.8%)     |
| Alprazolam                            | 200 (150%)        | Lorazepam                                 | 3,900 (7.7%)      |
| Bromazepam                            | 1,000 (30%)       | Lorazepam-glucuronide                     | 5,000 (6%)        |
| Clobazam                              | 200 (150%)        | Nitrazepam                                | 250 (120%)        |
| Clorazepate                           | 750 (40%)         | Norchlordiazepoxide                       | 500 (60%)         |
| Desalkylflurazepam                    | 1,200 (25%)       | Nordazepam                                | 390 (76.9%)       |
| Diazepam                              | 1,000 (30%)       | Temazepam                                 | 150 (200%)        |
| Flunitrazepam                         | 250 (120%)        | Triazolam                                 | 2,500 (12%)       |
| <b>COC150</b>                         |                   |   |                   |
| Benzoyllecgonine                      | 150 (100%)        | Cocaine                                   | 5,000 (3%)        |
| Cocaethylene                          | 50,000 (0.3%)     | Ecgonine                                  | 50,000 (0.3%)     |
| <b>COC300</b>                         |                   |   |                   |
| Benzoyllecgonine                      | 300 (100%)        | Cocaine                                   | 10,000 (3%)       |
| Cocaethylene                          | 100,000 (0.3%)    | Ecgonine                                  | 100,000 (0.3%)    |
| <b>COT</b>                            |                   |   |                   |
| (-)-Cotinine                          | 200 (100%)        | S(-)-Nicotine                             | >100,000(<0.2%)   |
| Trans-3'-hydroxycotinine              | 200 (100%)        | (R,S)-Norcotinine                         | 30,000(0.67%)     |
| <b>EDDP</b>                           |                   |   |                   |
| EDDP                                  | 300 (100%)        | MTD                                       | >100,000 (<0.3%)  |
| <b>EtG</b>                            |                   |   |                   |
| Ethyl glucuronide                     | 500 (100%)        |   |                   |
| <b>FEN20</b>                          |                   |   |                   |
| Norfentanyl(calibrator)               | 20 (100%)         | Fentanyl(parent drug)                     | 1,000 (2%)        |
| Alfentanil                            | >100,000(>0.02%)  | Sufentanil                                | >10,000(>0.2%)    |
| Carfentanil                           | >10,000(>0.2%)    |   |                   |
| <b>FEN5</b>                           |                   |   |                   |
| Norfentanyl(calibrator)               | 5 (100%)          | Fentanyl(parent drug)                     | 10,000 (0.05%)    |
| Acetyl norfentanyl                    | 250(2.50%)        | para-Fluorobutyryl fentanyl               | 10,000 (0.05%)    |
| Alfentanil                            | 5,000(0.05%)      |   |                   |
| <b>K2 10</b>                          |                   |   |                   |
| JWH-018 5-Pentanoic acid metabolite   | 10 (100%)         | JWH-073 4-Butanoic acid metabolite        | 10 (100%)         |
| JWH 018 N-Propanoic acid metabolite   | 15 (66.67%)       | MAM2201 N-Pentanoic acid metabolite       | 35 (28.57%)       |
| JWH 398 N-Pentanoic acid metabolite   | 60 (16.67%)       | JWH 210 N-Pentanoic acid metabolite       | 100 (10%)         |
| JWH 073 N-(4-Hydroxybutyl) metabolite | 200 (5%)          | JWH 200 6-Hydroxyindole metabolite        | 200 (5%)          |
| JWH-018 4-Hydroxypentyl metabolite    | 250 (4%)          | JWH-073 4-Hydroxybutyl metabolite         | 300 (3.33%)       |
| JWH-073 N-(3-Hydroxybutyl) metabolite | 400 (2.5%)        | AM2201 N-(4-Hydroxypentyl) metabolite     | 500 (2%)          |
| JWH-018 5-Hydroxypentyl metabolite    | 600 (1.67%)       | JWH 122 N-(4-Hydroxypentyl) metabolite    | 650 (1.54%)       |
| JWH 073 N-(2-Hydroxybutyl) metabolite | 1,000 (1%)        | JWH-019 6-Hydroxyhexyl metabolite         | 1,000 (1%)        |
| JWH-018                               | 1,000 (1%)        | JWH-019 5-Hydroxyhexyl metabolite         | 1,000 (1%)        |
| RCS-4 N-(5-Carboxypentyl) metabolite  | 2,000 (0.5%)      | JWH-122 5-Hydroxypentyl metabolite        | 2,500 (0.4%)      |
| JWH-210 5-Hydroxypentyl metabolite    | >10,000 (<0.1%)   | JWH-250 5-Hydroxypentyl metabolite        | >10,000 (<0.1%)   |
| JWH-073                               | >10,000 (<0.1%)   | 5-Fluoro PB-22 3-Carboxyindole metabolite | >100,000 (<0.01%) |
| JWH-210 4-Hydroxypentyl metabolite    | >10,000 (<0.1%)   | JWH-250 4-Hydroxypentyl                   | >100,000 (<0.01%) |
| BB-22 3-Carboxyindole                 | >100,000 (<0.01%) |   |                   |

|                           |                   |
|---------------------------|-------------------|
| metabolite                |                   |
| MDMB-CHMINACA             | >100,000 (<0.01%) |
| <b>K2+ 10</b>             |                   |
| AB-PINACA pentanoic acid  | 10 (100%)         |
| metabolite                |                   |
| AB-PINACA                 | 400 (2.5%)        |
| AB-PINACA 4-              |                   |
| Hydroxypentyl metabolite  | 25 (40%)          |
| AM2201 4-Hydroxypentyl    |                   |
| metabolite                | >10,000 (<0.1%)   |
| AB-FUBINACA               | 250 (4%)          |
| MMB-FUBINACA              | >10,000 (<0.01%)  |
| AB-PINACA 5-Pentanoic     |                   |
| acid metabolite           | 10 (100%)         |
| ADB-PINACA N-(4-          |                   |
| hydroxypentyl) metabolite | 25 (40%)          |
| ADB-PINACA N-(5-          |                   |
| hydroxypentyl) metabolite | 25 (40%)          |
| 5-fluoro AB-PINACA N-(4-  |                   |
| hydroxypentyl) metabolite | 25 (40%)          |
| AB-PINACA N-(5-           |                   |
| hydroxypentyl) metabolite | 25 (40%)          |
| AB-PINACA N-(4-           |                   |
| hydroxypentyl) metabolite | 25 (40%)          |

#### KET 1000

|               |                  |
|---------------|------------------|
| Ketamine      | 1,000 (100%)     |
| <b>MDMA</b>   |                  |
| (+/-)-MDMA    | 500 (100%)       |
| (+/-)-MDA     | 3,900 (12.8%)    |
| <b>MDPV</b>   |                  |
| (+/-)-MDPV    | 1000 (100%)      |
| Methcathinone | >10,000 (<0.01%) |

#### MET500

|                    |                |
|--------------------|----------------|
| D-Methamphetamine  | 500 (100%)     |
| D-Amphetamine      | 50,000 (1%)    |
| L-Amphetamine      | 50,000 (1%)    |
| 1R,2S(-)-Ephedrine | 100,000 (0.5%) |

#### MET 1000

|                   |               |
|-------------------|---------------|
| D-Methamphetamine | 1,000 (100%)  |
| L-Methamphetamine | 30,000 (3.3%) |
| D-Amphetamine     | 100,000 (1%)  |
| L-Amphetamine     | 100,000 (1%)  |

#### MTD

|           |            |
|-----------|------------|
| Methadone | 300 (100%) |
|-----------|------------|

#### OPI300

|                          |              |
|--------------------------|--------------|
| Morphine                 | 300 (100%)   |
| 6-Acetylmorphine         | 85 (352.9%)  |
| Codeine                  | 100 (300%)   |
| Codein-6beta-Glucuronide | 150 (200%)   |
| Ethylmorphine            | 150 (200%)   |
| Diacetylmorphine         | 900 (33.33%) |
| Hydrocodone              | 500 (60%)    |
| Hydromorphone            | 600 (50%)    |

#### OPI2000

|                  |                |
|------------------|----------------|
| Morphine         | 2,000 (100%)   |
| 6-Acetylmorphine | 700 (285.7%)   |
| Codeine          | 1,800 (111.1%) |

#### metabolite

|                           |                   |
|---------------------------|-------------------|
| PX 1                      | >100,000 (<0.01%) |
| MN-18                     | >100,000 (<0.01%) |
| PX 2                      | >100,000 (<0.01%) |
| 5-fluoro ADB-PINACA       | 100,000 (0.01%)   |
| 5-fluoro AEB              | >100,000 (<0.01%) |
| APINACA                   |                   |
| APINACA 5-Hydroxypentyl   | >10,000 (<0.1%)   |
| metabolite                | >10,000 (<0.1%)   |
| AM2201 N-(4-              | >100,000 (<0.01%) |
| hydroxypentyl) metabolite | >100,000 (<0.01%) |
| BB-22 3-carboxyindole     |                   |
| metabolite                | >100,000 (<0.01%) |
| 5-fluoro PB-22 3-         |                   |
| carboxyindole metabolite  | >100,000 (<0.01%) |
| 5-fluoro MN-18            |                   |
| AB-CHMINACA metabolite    |                   |
| M2                        | >100,000 (<0.01%) |
| 5-fluoro ADB              | >100,000 (<0.01%) |
| CUMYL-THPINACA            | >100,000 (<0.01%) |
| 5-fluoro AB-PINACA        | 100,000 (0.01%)   |
| ADB-PINACA pentanoic      |                   |
| acid metabolite           | 100 (10%)         |
| CUMYL-PICA                | >100,000 (<0.01%) |

|            |            |
|------------|------------|
| (+/-)-MDEA | 500 (100%) |
|------------|------------|

|            |                  |
|------------|------------------|
| Buphedrone | >10,000 (<0.01%) |
| Pentedrone | >10,000 (<0.01%) |
| Methylone  | >10,000 (<0.01%) |

|               |               |
|---------------|---------------|
| MDEA          | 30,000 (1.7%) |
| MDMA          | 3,500 (14.3%) |
| Mephentermine | 75,000 (0.7%) |

|                    |                  |
|--------------------|------------------|
| 1R,2S(-)-Ephedrine | >100,000 (<0.5%) |
| MDEA               | 60,000 (1.7%)    |
| MDMA               | 8,000 (12.5%)    |
| Mephentermine      | 100,000 (1%)     |

|                        |                |
|------------------------|----------------|
| Levorphanol            | 10,000 (3%)    |
| Morphine 3-glucuronide | 7,500 (4%)     |
| Norcodeine             | 30,000 (1%)    |
| Oxycodone              | 70,000 (0.43%) |
| Thebaine               | 20,000 (1.5%)  |
| Oxymorphone-3beta-     | >10,000 (<3%)  |
| Glucuronide            |                |

|                        |               |
|------------------------|---------------|
| Hydromorphone          | 5,000 (40%)   |
| Morphine-3-glucuronide | 2,600 (76.9%) |
| Oxycodone              | 70,000 (2.9%) |



|                                   |                  |                          |                   |
|-----------------------------------|------------------|--------------------------|-------------------|
| Ethylmorphine                     | 1,500 (133.3%)   | Thebaine                 | 95,000 (2.1%)     |
| Diacetylmorphine                  | 11,000 (18.2%)   |                          |                   |
| Hydrocodone                       | 5,000 (40%)      |                          |                   |
| <b>OXY</b>                        |                  |                          |                   |
| Oxycodone                         | 100 (100%)       | Hydrocodone              | 5,000 (2%)        |
| Codeine                           | 50,000 (0.2%)    | Hydromorphone            | 25,000 (0.4%)     |
| Ethylmorphine                     | 50,000 (0.2%)    | Oxymorphone              | 12,500 (0.8%)     |
| <b>PCP</b>                        |                  |                          |                   |
| Phencyclidine                     | 25 (100%)        | 4-Hydroxy-PCP            | 1,500 (1.7%)      |
| <b>PPX</b>                        |                  |                          |                   |
| Propoxyphene                      | 300 (100%)       | Norpropoxyphene          | 300 (100%)        |
| <b>TCA</b>                        |                  |                          |                   |
| 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%)       |
| <b>THC 20</b>                     |                  |                          |                   |
| 11-nor- $\Delta^9$ -THC-9-COOH    | 20 (100%)        | $\Delta^8$ -THC          | >100,000 (<0.02%) |
| (+/-)-11-Hydroxy- $\Delta^9$ -THC | 10,000 (0.2%)    | $\Delta^9$ -THC          | 25,000 (0.08%)    |
| Cannabinol                        | >100,000(<0.02%) | Cannabidiol              | >100,000(<0.02%)  |
| <b>THC50</b>                      |                  |                          |                   |
| 11-nor- $\Delta^9$ -THC-9-COOH    | 50 (100%)        | (-)- $\Delta^8$ -THC     | 20,000 (0.3%)     |
| (+/-)-11-Hydroxy- $\Delta^9$ -THC | 5,000 (1%)       | (-)- $\Delta^9$ -THC     | 20,000 (0.3%)     |
|                                   |                  | Cannabinol               | >100,000 (<0.05%) |
|                                   |                  | Cannabidiol              | >100,000 (<0.05%) |
| <b>TRA 200</b>                    |                  |                          |                   |
| cis-Tramadol                      | 200 (100%)       | N-Desmethyl-cis-Tramadol | 800 (25%)         |
| O-Desmethyl-cis-Tramadol          | 15,000 (1.33%)   | O-Desmethylvenlafaxine   | >10,000 (<2%)     |
| Venlafaxine                       | >100,000 (<0.2%) |                          |                   |

## D. INTERFERENCE

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      | $\beta$ -Phenylethylamine |
| Acetone               | Diclofenac                    | Kanamycin        | Procaine                  |
| Acetophenetidin       | Dicyclomine                   | Ketoprofen       | Promethazine              |
| Aspirin               | Diffunisal                    | Labetalol        | Quinacrine                |
| Albumin               | Digoxin                       | Lidocaine        | Quinidine                 |
| Amoxapine             | 4-Dimethylaminoan<br>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<br>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), Zolof (sertraline), Protonix (pantoprazole), Strattera (atomoxetine), Aleve (naproxen), Neurontin (gabapentin), Lyrica (pregabalin).

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