



## Multi-Drug Test Panel W/VO Adulteration (Urine) Product Insert

For laboratory *in vitro* diagnostic use only.

### INTENDED USE

The Rapid Response™ Multi-Drug Test Panel (Urine) is a rapid chromatographic immunoassay for the qualitative and simultaneous detection of one to thirty of the following drugs in a variety of combinations in human urine. The designed cutoff concentrations and direct calibrator for these drugs are as follows:

| Parameter | Calibrator  | Cut-off(ng/mL)    |
|-----------|---|-------------------|
| ACE       | Acetaminophen   | 5000              |
| AMP       | d-Amphetamine   | 1000/500/300      |
| BAR       | Secobarbital  | 300               |
| BUP       | BUP-3-D-Glucuronide   | 10/5              |
| BZO       | Oxazepam  | 500/300/200/100   |
| COC       | Benzoylcegonine   | 300/200/150/100   |
| COT       | (-)-Cotinine  | 600/300/200       |
| EDDP      | 2-Ethylidene-1,5-dimethyl-3,3-diphenylpyrrolidine             | 300/100           |
| ETG       | Ethyl Glucuronide   | 500               |
| FYL       | Norfentanyl/Fentanyl  | 20/10             |
| HMO       | Hydromorphone   | 250               |
| K2        | JWH-073/JWH-018   | 50                |
| KET       | Ketamine  | 1,000/300         |
| LSD       | 9,10-Didehydro-N,N-diethyl-6-methylergoline-8beta-carboxamide | 50                |
| 6-MAM     | 6-Monoacetylmorphine  | 10                |
| MDMA      | 3,4-Methylenedioxy-MET  | 1000/500          |
| MET       | Methamphetamine   | 1000/500/300      |
| MOP       | Morphine  | 300/200/100       |
| MPD       | Methylphenidate   | 1000/300          |
| MQL       | Methaqualone  | 300               |
| MTD       | Methadone   | 300/200           |
| OPI       | Morphine  | 2000/1000         |
| OXY       | Oxycodone   | 300/100           |
| PCP       | Phencyclidine   | 25                |
| PPX       | D-Propoxyphene  | 300               |
| TCA       | Nortriptyline   | 1000              |
| THC       | 11-nor- $\Delta^9$ -THC-9-COOH                                | 300/200/150/50/25 |
| TRA       | Tramadol  | 300/100           |
| ZOL       | Zolpidem  | 50                |

|                          |                                      |
|--------------------------|--------------------------------------|
| Adulteration ( Strip A ) | Oxidants / Specific Gravity / pH     |
| Adulteration ( Strip B ) | Nitrite / Glutaraldehyde /Creatinine |

The DOA test is used to obtain visual qualitative result and is intended to assist in the determination of drug compliance. This assay provides only a preliminary analytical test result. A more specific alternative chemical method must be used in order to obtain a confirmed analytical result. Gas Chromatography/ Mass Spectrometry (GC/MS) or Liquid Chromatography/ Mass Spectrometry (LC/MS) are the preferred confirmatory method. Clinical consideration and professional judgment should be applied to any drug of abuse test result, particularly when preliminary positive results are indicated.

The Urine Adulteration Test Strips (Urine) are a semi-quantitative color comparison screen for the detection of Creatinine, Nitrite, Glutaraldehyde, pH, Specific Gravity, Oxidants and Pyridinium Chlorochromate in human urine. This test provides a preliminary screen only. A more specific alternate chemical method must be used in order to obtain a confirmed analytical result. Abnormal results should be sent to a laboratory for confirmation.

### PRINCIPLE

The Rapid Response™ Multi-Drug Test Panel (Urine) is one-step immunoassay in which chemically labeled drugs (drug-protein conjugates) compete for limited antibody binding sites with drugs which may be present in urine. The test membrane strips are pre-coated with drug-protein conjugates on the test band(s). For each strip, the drug antibody-colloidal gold conjugate pad is placed at one end of the membrane. In the absence of drug in the urine, the solution of the colored antibody-colloidal gold conjugate move along with the sample solution upward chromatographically by capillary action across the membrane to the immobilized drug-protein conjugate zone on the test band region. The colored antibody-gold conjugate then attach to the drug-protein conjugates to form visible lines as the antibody complex with the drug conjugate. Therefore, the formation of the visible precipitant in the test zone occurs when the test urine is negative for the drug. When the drug is present in the urine, the drug/metabolite antigen competes with drug-protein conjugate on the test band region for the limited antibody. When a sufficient concentration of the drug is present, it will fill the limited antibody binding sites. This will prevent attachment of the colored antibody-colloidal gold conjugate to the drug-protein conjugate zone on the test band region. Therefore, absence of the color band on the test region indicates a positive result.

A control band with a different antigen/antibody reaction is added to the immune-chromatographic membrane strip at the control region (C) to indicate that the test has performed properly. This control line should always appear regardless of the presence of drug or metabolite. If the control line does not appear the test strip should be discarded.

Adulteration is the tampering of a urine specimen with the intention of altering the test results. The use of adulterants can cause

false negative results in drug tests by either interfering with the screening test and/or destroying the drugs present in the urine. Dilution may also be employed in an attempt to produce false negative drug test results.

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

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

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

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

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

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

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

### REAGENTS AND MATERIALS

#### Materials Provided

- Rapid Response™ Multi-Drug Test Panel (Urine)
- Product Insert
- Adulteration Color Chart (when applicable)

#### Materials Required but Not provided

- Specimen collection container
- Timer
- Positive and negative urine controls

### PRECAUTIONS

- For laboratory *in vitro* diagnostic use only.
- The pouch containing the test device should be sealed. Discard the test device if package is ripped or torn.
- Urine specimens may be potentially infectious. Proper handling and disposal methods should be established.
- Avoid cross-contamination of urine samples by using a new specimen collection container and specimen pipette for each urine sample.

### STORAGE AND STABILITY

The pouched Rapid Response™ Multi-Drug Test Panel (Urine) should be stored at normal humidity and room temperature or refrigerated (2-30°C; 36-86°F) until the expiration date stated on the pouch. The product is humidity-sensitive and should be used immediately after being opened. Any test in an improperly sealed pouch should be discarded.

### SPECIMEN COLLECTION AND STORAGE

**Urine Collection:** The Rapid Response™ Multi-Drug Test Panel (Urine) is formulated for use with urine specimens. Fresh urine does not require any special handling or pretreatment. The urine specimen must be collected in a clean and dry container. Urine collected at any time of the day may be used. Urine specimens exhibiting visible precipitates should be centrifuged, filtered, or allowed to settle to obtain clear specimen for testing.

**Urine Storage:** It is recommended the collected fresh urine to be tested immediately. Fresh urine maybe stored at room temperature (25°C; 77°F) for up to 4 hours or to be refrigerated (2-8°C; 36-86°F) for up to 48 hours prior to performing the test. For prolonged storage, specimens may be frozen and stored below -20°C (-4°F). Specimens that have been refrigerated must be brought to room temperature prior to testing. Previously frozen specimens must be thawed, brought to room temperature, and mixed thoroughly prior to testing.

**Note:** Urine specimens and all materials coming in contact with them should be handled and disposed of as if capable of transmitting infection. Avoid contact with skin by wearing gloves and proper laboratory attire.

### PROCEDURE

**IMPORTANT Test device, patient's sample, and controls should be brought to room temperature (15-30°C; 59-86°F) prior to testing. Do not open pouches until ready to perform the assay.**

- Remove the test device from the sealed pouch and use it as soon as possible.
- Dip the sample pad area of the dipstick strip or dipstick card in the urine specimen submerging only up to the "MAX" mark of the dipstick strip or the edge of the dipstick card.
- For the adulteration tests, visually compare the color of the reaction pad with the color card, and the results should be read at 2 minutes. Do not interpret the results after 5 minutes.



- The drug strip result(s) should be read at 5 minutes. However, negative results may be read and reported as early as 3 minutes but positive results must be reported at 5 minutes only. Do not interpret the drug strip result(s) after 10 minutes after the addition of sample.

### INTERPRETATION OF RESULTS



**POSITIVE: Only one colored band appears, in the control region (C).** No apparent colored band appears in the test region (T).



**NEGATIVE: Two colored bands appear on the membrane.** One band appears in the control region (C) and another band appears in the test region (T).



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

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

**The Result of Adulteration Strips:** For specific color please reference the Adulteration Color Chart.

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

**Creatinine:** Normal Creatinine levels are between 20 and 350 mg/dL. Under rare conditions, certain kidney diseases show dilute urine. **Nitrite:** Nitrite is not a normal component of human urine. However, Nitrite found in urine may indicate urinary tract infections or bacterial infections. Nitrite levels of >20 mg/dL may produce false positive Glutaraldehyde results. **Glutaraldehyde:** Glutaraldehyde is not normally found in urine. However, certain metabolic abnormalities such as ketoacidosis (fasting, uncontrolled diabetes or high-protein diets) may interfere with the test results. **Specific Gravity:** Elevated levels of protein in urine may cause abnormally high Specific Gravity values. **Oxidants/PCC:** Normal human urine should not contain Oxidants or PCC. The presence of high levels of antioxidants in the specimen, such as ascorbic acid, may result in false negative results for the Oxidants/PCC pad.

### QUALITY CONTROL

- Good laboratory practice recommends the use of control materials to ensure proper kit performance. Quality control specimens are available from commercial sources and are recommended to be used as per facilities quality control testing protocol. Use the same assay procedure as with a urine specimen. Controls should be challenging to the assay cutoff concentration. If control values do not fall within established limits, assay results are invalid. Users should follow the appropriate federal, state, and local guidelines concerning the running of external quality controls.
- The Rapid Response™ Multi-Drug Test Panel (Urine) provides built-in process control with a different antigen/antibody reaction at the control region (C) in each strip. This control line should always appear regardless of the presence of drug or metabolite. If the control line does not appear, the test device should be discarded. The presence of this control band in the control region serves as 1) verification that sufficient volume is added, 2) that proper flow is obtained.

### LIMITATIONS OF THE TEST

- The Rapid Response™ Multi-Drug Test Panel (Urine) is for laboratory *in vitro* diagnostic use, and should be only used for the qualitative detection of drugs of abuse.
- The assay is designed for use with human urine only.
- A positive result with any of the tests indicates only the presence of a drug/metabolite and does not indicate or measure intoxication.
- There is a possibility that technical or procedural error as well other substances as factors not listed may interfere with the test and cause false results. See SPECIFICITY for lists of substances that will produce either positive results, or that do not interfere with test performance.
- If a drug/metabolite is found present in the urine specimen, the assay does not indicate frequency of drug use or distinguish between drug of abuse and certain foods and medicines.

### PERFORMANCE CHARACTERISTICS

**Accuracy** Accuracy of the DOA Test Panels was established by running urine sample against GC/MS specification. The following results were tabulated:

| Specimen | % Agreement with GC/MS |         |        |        |       |       |      |        |
|----------|------------------------|---------|--------|--------|-------|-------|------|--------|
|          | ACE                    | AMP1000 | AMP500 | AMP300 | BAR   | BUP10 | BUP5 | BZO500 |
| Positive | 96.1%                  | 95.8%   | 95.9%  | 96.1%  | 97.8% | 100%  | 100% | 98%    |
| Negative | 100%                   | 100%    | 100%   | 100%   | 98.1% | 100%  | 100% | 100%   |
| Total    | 98.1%                  | 98.1%   | 98.1%  | 98.1%  | 98%   | 100%  | 100% | 99%    |

| Specimen | BZO300 | BZO200 | BZO100 | COC300 | COC200 | COC150 | COC100 | COT600 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|
| Positive | 95.3%  | 97.4%  | 95.9%  | 98.2%  | 95.7%  | 96%    | 98.2%  | 96.5%  |
| Negative | 92.9%  | 98.2%  | 98%    | 98.1%  | 98.1%  | 94%    | 98.1%  | 98%    |
| Total    | 93.9%  | 97.9%  | 97%    | 98.2%  | 97.0%  | 95%    | 98.2%  | 97.2%  |



|   |          |                                    |          |
|---|----------|------------------------------------|----------|
| (-)-Cotinine                                  | 300      | (-)-Nicotine                       | 9,375    |
| <b>Cotinine 200 related compounds</b>         |          |                                    |          |
| (-)-Cotinine                                  | 200      | (-)-Nicotine                       | 6,250    |
| <b>EDDP 100 related compounds</b>             |          |                                    |          |
| EDDP  | 100      | Promazine                          | 50,000   |
| Meperidine                                    | >100,000 | Promethazine                       | 25,000   |
| Methadone                                     | >100,000 | Prothipendyl                       | 50,000   |
| Norfentanyl                                   | >100,000 | Prozine                            | 12,500   |
| Phencyclidine                                 | >100,000 |                                    |          |
| <b>EDDP 300 related compounds</b>             |          |                                    |          |
| EDDP  | 300      | Promazine                          | 80,000   |
| Meperidine                                    | >100,000 | Promethazine                       | 75,000   |
| Methadone                                     | >100,000 | Prothipendyl                       | 80,000   |
| Norfentanyl                                   | >100,000 | Prozine                            | 37,500   |
| Phencyclidine                                 | >100,000 |                                    |          |
| <b>ETG 500 related compounds</b>              |          |                                    |          |
| Ethyl Glucuronide                             | 500      |                                    |          |
| <b>Fentanyl 10 related compounds</b>          |          |                                    |          |
| Fentanyl                                      | 10       | Norfentanyl                        | 50       |
| <b>Fentanyl 20 related compounds</b>          |          |                                    |          |
| Fentanyl                                      | 20       | Norfentanyl                        | 375      |
| <b>HMO 250 related compounds</b>              |          |                                    |          |
| Hydromorphone                                 | 250      | Ethylmorphine                      | 5,000    |
| Acetylcodeine                                 | 10,000   | Dihydrocodeine                     | 25,000   |
| Thebaine                                      | 25,000   | Diacetyl Morphine                  | 10,000   |
| Nalorphine                                    | 12,500   | Codeine                            | 50,000   |
| Morphine-3-glucuronid                         | 2,500    | Buprenorphine                      | 10,000   |
| Morphine                                      | 5,000    | 6-Monoacetylmorphine               | 10,000   |
| Hydrocodone                                   | 3,100    |                                    |          |
| <b>K2 50 related compounds</b>                |          |                                    |          |
| JWH-018-5-Pentanoic acid                      | 50       | JWH-073-4-Butanoic acid            | 50       |
| <b>Ketamine 1000 related compounds</b>        |          |                                    |          |
| Ketamine                                      | 1,000    | Methadone                          | 12,500   |
| Norketamine                                   | 1,000    | D-Methamphetamine                  | 12,500   |
| Dextromethorphan                              | 500      | 3,4-Methylenedioxyethylamphetamine | 25,000   |
| Dextrorphan tartrate                          | 500      | Nordoxepin hydrochloride           | 25,000   |
| D-Norpropoxyphene                             | 31,250   | Phencyclidine                      | 5,000    |
| EDDP  | 800      | Promazine                          | 8,000    |
| Meperidine                                    | 12,500   | Promethazine                       | 25,000   |
| Mephentermine hemisulfate salt                | 50,000   |                                    |          |
| <b>Ketamine 300 related compounds</b>         |          |                                    |          |
| Ketamine                                      | 300      |                                    |          |
| <b>LSD 50 related compounds</b>               |          |                                    |          |
| Lysergic acid diethylamide                    | 50       |                                    |          |
| <b>6-MAM 10 related compounds</b>             |          |                                    |          |
| 6-Monoacetylmorphine                          | 10       | Morphine                           | 15       |
| <b>MDMA (Ecstasy) 500 related compounds</b>   |          |                                    |          |
| 3,4-Methylenedioxy-methamphetamine            | 500      | 3,4-Methylenedioxyamphetamine      | 2,500    |
| d-Amphetamine                                 | >100,000 | 3,4-Methylenedioxyethylamphetamine | 156      |
| l-Amphetamine                                 | >100,000 | Paramethoxyamphetamine             | 50,000   |
| d-methamphetamine                             | >100,000 | Paramethoxymethamphetamine         | >100,000 |
| l-methamphetamine                             | >100,000 |                                    |          |
| <b>MDMA (Ecstasy) 1000 related compounds</b>  |          |                                    |          |
| 3,4-Methylenedioxy-methamphetamine            | 1,000    |                                    |          |
| <b>Methamphetamine 1000 related compounds</b> |          |                                    |          |
| d-Methamphetamine                             | 1,000    | 3,4-Methylenedioxyethylamphetamine | 50,000   |
| Chloroquine                                   | 25,000   | 3,4-Methylenedioxy-methamphetamine | 313      |
| Fenfluramine                                  | 12,500   | Paramethoxymethamphetamine         | 625      |
| l-Methamphetamine                             | 10,000   | (-)-Ephedrine                      | 4,000    |
| Mephentermine hemisulfate salt                | 31,250   |                                    |          |
| <b>Methamphetamine 500 related compounds</b>  |          |                                    |          |
| d-Methamphetamine                             | 500      | MDEA                               | 12,500   |
| Chloroquine                                   | 12,500   | MDMA                               | 1,875    |
| Fenfluramine                                  | 12,500   | PMMA                               | 625      |
| l-Methamphetamine                             | 3,125    | (-)-Ephedrine                      | 2,000    |
| Mephentermine hemisulfate salt                | 25,000   |                                    |          |
| <b>Methamphetamine 300 related compounds</b>  |          |                                    |          |
| d-Methamphetamine                             | 300      | MDEA                               | 50,000   |
| Chloroquine                                   | 7,500    | MDMA                               | 313      |
| Fenfluramine                                  | 12,500   | PMMA                               | 625      |
| l-Methamphetamine                             | 10,000   | (-)-Ephedrine                      | 2,000    |
| Mephentermine hemisulfate salt                | 31,250   |                                    |          |

|  |          |                              |          |
|--|----------|------------------------------|----------|
| <b>Morphine 300 related compounds</b>              |          |                              |          |
| Morphine   | 300      | Hydrocodone                  | 12,500   |
| Acetylcodeine                                      | 150      | Hydromorphone                | 12,500   |
| Buprenorphine                                      | 3,125    | 6-Monoacetylmorphine         | 250      |
| Codeine  | 250      | Morphine-3-glucuronid        | 2,500    |
| Diacetyl Morphine                                  | 250      | Nalorphine                   | 25,000   |
| Dihydrocodeine                                     | 586      | Thebaine                     | 25,000   |
| Ethylmorphine                                      | 200      |                              |          |
| <b>Morphine 200 related compounds</b>              |          |                              |          |
| Morphine   | 200      | Hydrocodone                  | 8,350    |
| Acetylcodeine                                      | 100      | Hydromorphone                | 8,350    |
| Buprenorphine                                      | 2,000    | 6-Monoacetylmorphine         | 170      |
| Codeine  | 170      | Morphine-3-glucuronid        | 1,670    |
| Diacetyl Morphine                                  | 168      | Nalorphine                   | 16,666   |
| Dihydrocodeine                                     | 395      | Thebaine                     | 16,666   |
| Ethylmorphine                                      | 135      |                              |          |
| <b>Morphine 100 related compounds</b>              |          |                              |          |
| Morphine   | 100      | Morphine-3-β-d-glucuronide   | 2,000    |
| Codeine  | 100      | Oxycodone                    | 20,000   |
| Diacetylmorphine (Heroin)                          | 100      | Oxymorphone                  | 20,000   |
| Ethylmorphine                                      | 100      | Promethazine                 | >100,000 |
| Hydromorphone                                      | 500      | Rifampicine                  | 8,400    |
| Hydrocodone  | 500      | Thebaine                     | 8,400    |
| 6-Monoacetylmorphine                               | 100      | Trimipramine                 | 20,000   |
| <b>MPD 300 related compounds</b>                   |          |                              |          |
| Methylphenidate                                    | 300      |                              |          |
| <b>MPD 1000 related compounds</b>                  |          |                              |          |
| Methylphenidate                                    | 1000     |                              |          |
| <b>Methaqualone 300 related compounds</b>          |          |                              |          |
| Methaqualone                                       | 300      | Nortriptyline                | 50,000   |
| Amitriptyline                                      | 50,000   | Phenytion                    | 40,000   |
| Carbamazepine                                      | 20,000   | Theophylline                 | 40,000   |
| <b>Methadone 300 related compounds</b>             |          |                              |          |
| Methadone  | 300      | (-)-alpha-methadol           | 2,000    |
| <b>Methadone 200 related compounds</b>             |          |                              |          |
| Methadone  | 200      | (-)-alpha-methadol           | 1,800    |
| <b>Opiates 2000 related compounds</b>              |          |                              |          |
| Morphine   | 2,000    | Meperidine                   | >100,000 |
| Acetylcodeine                                      | 1,563    | 6-Monoacetylmorphine (6-MAM) | 1,250    |
| Buprenorphine                                      | 25,000   | Morphine-3-β-d-glucuronide   | 12,500   |
| Codeine  | 500      | Nalorphine Hydrochloride     | >100,000 |
| Diacetylmorphine (Heroin)                          | 1,250    | Oxycodone                    | >100,000 |
| Dihydrocodeine                                     | 1,563    | Oxymorphone                  | >100,000 |
| Ethylmorphine                                      | 800      | Rifampicine                  | >100,000 |
| Hydromorphone                                      | 25,000   | Thebaine                     | 50,000   |
| Hydrocodone  | 50,000   |                              |          |
| <b>Opiates 1000 related compounds</b>              |          |                              |          |
| Morphine   | 1,000    |                              |          |
| <b>Oxycodone 300 related compounds</b>             |          |                              |          |
| Oxycodone  | 300      | Naloxone                     | >100,000 |
| Hydrocodone  | 75,000   | Oxymorphone                  | 750      |
| Hydromorphone                                      | >100,000 |                              |          |
| <b>Oxycodone 100 related compounds</b>             |          |                              |          |
| Oxycodone  | 100      | Naloxone                     | 50,000   |
| Hydrocodone  | 25,000   | Oxymorphone                  | 250      |
| Hydromorphone                                      | 50,000   |                              |          |
| <b>Phencyclidine 25 related compounds</b>          |          |                              |          |
| Phencyclidine                                      | 25       | Hydromorphone                | 6,250    |
| Hydrocodone  | 12,500   | 4-hydroxyphencyclidine       | 75       |
| <b>Propoxyphene 300 related compounds</b>          |          |                              |          |
| D-Propoxyphene                                     | 300      | D-Norpropoxyphene            | 5,000    |
| <b>Tricyclic Antidepressants related compounds</b> |          |                              |          |
| Nortriptyline HCl                                  | 1,000    | Nordoxepin                   | 500      |
| Amitriptyline                                      | 1,500    | Opipramol                    | 1,563    |
| Clomipramine                                       | >100,000 | Promazine                    | 1,000    |
| Cyclobenzaprine                                    | 12,500   | Promethazine                 | 6,250    |
| Desipramine  | 188      | Prothipendyl                 | 25,000   |
| Doxepin  | 2,000    | Protryptiline                | 6,250    |
| Imipramine   | 2,500    | Prozine                      | 1,250    |
| Maprotiline  | 750      | Trimipramine                 | >100,000 |
| <b>Marijuana 200 related compounds</b>             |          |                              |          |
| 11-nor-Δ9-THC-9-COOH                               | 200      |                              |          |

|  |        |                         |          |
|--|--------|-------------------------|----------|
| <b>Marijuana 300 related compounds</b> |        |                         |          |
| 11-nor-Δ9-THC-9-COOH                   | 300    |                         |          |
| <b>Marijuana 150 related compounds</b> |        |                         |          |
| 11-nor-Δ9-THC-9-COOH                   | 150    | Δ9-Tetrahydrocannabinol | 45,000   |
| 11-nor-Δ8-THC-9-COOH                   | 90     | Cannabinol              | 60,000   |
| Δ8-Tetrahydrocannabinol                | 45,000 |                         |          |
| <b>Marijuana 50 related compounds</b>  |        |                         |          |
| 11-nor-Δ9-THC-9-COOH                   | 50     | Δ9-Tetrahydrocannabinol | 15,000   |
| 11-nor-Δ8-THC-9-COOH                   | 50     | Cannabinol              | 20,000   |
| 11-hydroxy-Δ9-Tetrahydrocannabinol     | 50     | Cannabidiol             | >100,000 |
| Δ8-Tetrahydrocannabinol                | 15,000 |                         |          |
| <b>Marijuana 25 related compounds</b>  |        |                         |          |
| 11-nor-Δ9-THC-9-COOH                   | 25     | Δ9-Tetrahydrocannabinol | 7,500    |
| 11-nor-Δ8-THC-9-COOH                   | 15     | Cannabinol              | 10,000   |
| Δ8-Tetrahydrocannabinol                | 7,500  |                         |          |
| <b>Tramadol 300 related compounds</b>  |        |                         |          |
| Tramadol                               | 300    |                         |          |
| <b>Tramadol 100 related compounds</b>  |        |                         |          |
| Tramadol                               | 100    | Diphenhydramine         | 50,000   |
| (+/-)Chlorpheniramine                  | 50,000 | Phencyclidine           | 50,000   |
| Dimenhydrinate                         | 50,000 | (+)-Chlorpheniramine    | >100,000 |
| <b>Zolpidem 50 related compounds</b>   |        |                         |          |
| Zolpidem                               | 50     |                         |          |

**Non Cross-Reacting Compounds**

The following compounds were found not to cross-react when tested at concentrations at 100 µg/ml.

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

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**GLOSSARY OF SYMBOLS**

|                                   |          |               |                                    |
|-----------------------------------|----------|---------------|------------------------------------|
| <b>SVT/Adulterant Color Chart</b> |          |               |                                    |
| <b>Abnormal</b>                   | Abnormal | <b>OX PCC</b> | Oxidants/Pyridinium chlorochromate |
| <b>Normal</b>                     | Normal   | <b>S.G.</b>   | Specific gravity                   |
|                                   |          | <b>pH</b>     | pH                                 |
|                                   |          | <b>NIT</b>    | Nitrite                            |
|                                   |          | <b>GLUT</b>   | Glutaraldehyde                     |
|                                   |          | <b>CRE</b>    | Creatinine                         |

|                         |   |  |               |
|-------------------------|---|--|---------------|
| <b>Index of Symbols</b> |   |  |               |
|                         | Consult instructions for use            |  | Tests per kit |
|                         | For <i>in vitro</i> diagnostic use only |  | Use by        |
|                         | Store between 2-30°C                    |  | Lot Number    |
|                         | Authorized Representative               |  | Do not reuse  |
|                         | Catalog #                               |  |               |

**BTNX Inc.**  
570 Hood Road, Unit 23  
Markham, ON, L3R 4G7, Canada  
Technical Support: 1-888-339-9964