<u>Unrelated Compounds, Prescription and Over-the-Counter Medications</u>
The following compounds were tested for reactivity to the PROFILE®-V MEDTOX*Scan*® Drugs of Abuse Test System. Listed compounds were dissolved in appropriate solvents and then added to drug-free urine for testing. Unless otherwise noted by a drug name abbreviation such as "AMP" or "BAR" etc., all of the listed compounds were negative in each of the tests at 100 µg/mL or the highest level tested. If a drug name is followed by an abbreviation such as "AMP" or "BAR" etc., check the "Related Compounds and Cross Reactants" listing for the drug in question under the appropriate heading (AMP, BAR, etc.) to find its level of cross-reactivity to that test.

Acetaminophen Acetylsalicyclic Acid Alloharbital-BAR Alprazolam-BZO

Alprazolam, 1-Hydroxy-BZO 7-Aminoclonazepam 7-Aminoflunitrazepam Amitriptyline-TCA Amobarbital-BAR Amoxapine Amoxicillin

d-Amphetamine-AMP I- Amphetamine-AMP Ampicillin Apomorphine I-Ascorbic Acid Atomoxetine Atropine Sulfate Barbital-BAR

Barbituric Acid
Benzocaine (ethyl-4-aminobenzoate)

Benzoic Acid Benzoylecgonine-COC Benzphetamine Benztropine Brompheniramine Buprenorphine-BUP Bupropion Butabarbital-BAR Butalbital-BAR

Caffeine Cannabidiol Cannabinol Carbamazepine

Carbamazepine- 10,11 epoxide Carisoprodol (Meprobamate)

Cephalexin Chlordiazepoxide Chlorothiazide Chlorpheniramine Chlorpromazine Clobazam-BZO Clomipramine Clonazepam-BZO Clorazepate-BZO Clozapine-TCA Cocaine-COC

Codeine-OPI, OXY Cotinine Cyclobenzaprine-TCA
Cyclopentobarbital-BAR
Desalkylflurazepam-BZO

Desipramine-TCA
Desmethylchlordiazepoxide-BZO
Desmethylflunitrazepam-BZO Desmethylvenlafaxine

Dextromethorphan Diacetylmorphine-OPI Diazepam-BZO Diclofenac Diethylpropion

Dihydrocodeine-OPI, OXY

Diphenhydramine

Diphenylhydantoin (Phenytoin)-BAR

Domperidone Dopamine Doxepin-TCA Doxylamine Ecgonine

Ecgonine Methyl Ester

EDDP-(Primary metabolite of methadone)

Efavirenz (Sustiva)

EMDP-(Secondary metabolite of methadone)

Ephedrine-MAMP Erythromycin Ethanol

Ethylmorphine-OPI, OXY Fenfluramine-MAMP, AMP Fenoprofen Fentanyl (Synthetic opiate)

Flunitrazepam-BZO Fluoxetine (Prozac) Flurazepam Fluvoxamine Furosemide Glutethimide Haloperidol

Hydralazine Hydrochlorothiazide Hydrocodone-OPI, OXY Hydrocortisone Hydromorphone-OPI, OXY

Hexobarbital

Hydroxybupropion I-11-Hydroxy-Δ⁹-THC 4-Hydroxyphencyclidine-PCP

Hydroxyzine Ibuprofen Imipramine-TCA Ketamine Ketoprofen Levorphanol-OPI Lidocaine Lithium carbonate

Loperamide Lorazepam glucuronide-BZO Lorazepam-BZO

Loxapine

Lysergic Acid Lysergic Acid Diethylamide (LSD) Maprotiline-TCA

MDA-AMP MDE (MDEA)-MAMP MDMA-MAMP Meperidine Mephobarbital Mepivacaine Mesoridazine
Methadone-MTD
d-Methamphetamine-MAMP

I-Methamphetamine-MAMP Methaqualone Methcathinone Methocarbamol Methylphenidate Metoprolol Midazolam-BZO

Mirtazapine 6-Monoacetylmorphine-OPI

Morphine-OPI, OXY Morphine 3-β-D-Glucuronide-OPI Morphine 6-β-D-Glucuronide-**OPI**, **OXY**

Nalorphine-OPI Naloxone-OXY Naltrexone-OXY Naproxen Nicotine

Nitrazepam-BZO 11-Nor-9-carboxy-Δ⁹-THC -**THC** Norclomipramine Norcodeine-OPI, OXY Nordiazepam-BZO Nordoxepin-TCA Norlysergic Acid Normeperidine Norpropoxyphene-PPX I-Norpseudoephedrine

Nortriptyline-TCA Olanzapine Orphenadrine Oxaprosin

Oxazepam glucuronide-BZO Oxazepam-BZO Oxycodone-OXY Oxymetazoline Oxymorphone-OXY Penicillin G Pentazocine Pentobarbital-BAR Perphenazine-TCA
Phencyclidine-PCP
Phendimetrazine Phenethylamine-MAMP Pheniramine Phenmetrazine Phenobarbital-BAR

Phenothiazine Phentermine-AMP Phenylbutazone Phenylephrine-MAMP Phenylpropanolamine Piroxicam Prednisone Procainamide Procaine-MAMP
Prochlorperazine-TCA
Promazine-TCA

Promethazine Propoxyphene-PPX
Propranolol Protriptyline-TCA d-Pseudoephedrine Pyrilamine

Quetiapine (Seroquel)-TCA

Quinidine Ranitidine Riboflavin Salicylic Acid Secobarbital-BAR Sertraline (Zoloft) Sildenafil (Viagra) Sulfamethazine Sulindac Talbutal-BAR

Temazepam glucuronide-BZO Temazepam-BZO

Tetracycline

 $\Delta^8\text{-}Tetrahydrocannabinol} \square \\ \Delta^9\text{-}Tetrahydrocannabinol-THC}$

Tetrahydrozoline Thebaine-OPI Theophyline Thiopental Thioridazine Thiothixene Tolmetin (Tolectin)

Trazodone

Verapamil

Triamterene Triazolam, 1-hydroxy-BZO Triazolam-BZÓ Trifluoperazine Trimethoprim Trimipramine-TCA Tripelennamine Tryptophan Tyramine Valproic Acid Venlafaxine

Related Compounds and Cross Reactants

The following metabolites and reacting compounds were evaluated for the specified test on the PROFILE®-V MEDTOX. Can® Drugs of Abuse Test System. Reference standards for the various metabolites and compounds were prepared in negative urine samples. Results are expressed as the minimum concentration expected to produce a positive result in the indicated assay. Compounds that reacted with the test are listed first, and related compounds that did not react with the highest concentration tested are listed second as Negative at 100,000 ng/mL. "% Cross-Reactive" values were calculated from the cut-off level for the calibrator used for each test (approximate 50% positive rate) divided by the lowest reported level found to react in the same test (greater than 66% positive rate).

Amphetamines (AMP) (d-Amphetamine) 500 ng/mL I-Amphetamine Fenfluramine MDA Phentermine	Result Positive at 50,000 ng/mL Positive at 10,000 ng/mL Positive at 250 ng/mL Positive at 7,500 ng/mL	% Cross-Reactive 1% 5% 200% 7%
Ephedrine MDE (MDEA) MDMA I-Methamphetamine d-Methamphetamine Phenethylamine Pseudoephedrine Tyramine	Negative at 100,000 ng/mL Negative at 100,000 ng/mL	None Detected None Detected None Detected None Detected None Detected None Detected None Detected None Detected
Barbiturate (BAR) (Butalbital) 200 ng/mL Allobarbital Amobarbital Barbital Butabarbital Cyclopentobarbital Diphenylhydantoin (Phenytoin) Pentobarbital Phenobarbital Secobarbital Talbutal	Result Positive at 250 ng/mL Positive at 800 ng/mL Positive at 2,500 ng/mL Positive at 2,500 ng/mL Positive at 250 ng/mL Positive at 250 ng/mL Positive at 2,000 ng/mL Positive at 300 ng/mL Positive at 1,250 ng/mL Positive at 50 ng/mL Positive at 50 ng/mL Positive at 50 ng/mL	% Cross-Reactive 80% 25% 8% 50% 80% 10% 67% 16% 400%
Barbituric Acid Glutethimide Hexobarbital Mephobarbital Thiopental	Negative at 100,000 ng/mL Negative at 100,000 ng/mL Negative at 100,000 ng/mL Negative at 100,000 ng/mL Negative at 100,000 ng/mL	None Detected None Detected None Detected None Detected None Detected
Benzodiazepine (BZO) (Nordiazepam) 150ng/mL Alprazolam, 1-OH Clobazam Clonazepam Clorazepate Desalkylflurazepam Desmethylchlordiazepoxide Desmethylflunitrazepam Diazepam Flunitrazepam Lorazepam Lorazepam Lorazepam Midazolam Nitrazepam Oxazepam Oxazepam glucuronide Temazepam Temazepam glucuronide Triazolam, 1-OH 7-Aminoclonazepam	Result Positive at 100 ng/mL Positive at 25,000 ng/mL Positive at 75 ng/mL Positive at 900 ng/mL Positive at 200 ng/mL Positive at 600 ng/mL Positive at 1,000 ng/mL Positive at 75 ng/mL Positive at 75 ng/mL Positive at 50 ng/mL Positive at 50 ng/mL Positive at 5,000 ng/mL Positive at 5,000 ng/mL Positive at 5,000 ng/mL Positive at 50 ng/mL Positive at 2,500 ng/mL Positive at 2,500 ng/mL Positive at 2,500 ng/mL Positive at 750 ng/mL Positive at 750 ng/mL Positive at 750 ng/mL Positive at 750 ng/mL Positive at 10,000 ng/mL Positive at 10,000 ng/mL	% Cross-Reactive 150% <1% 200% 17% 75% 25% 15% 200% 300% 300% 13% 15% 36 15% 300% 75% 6% 167% 20% 20% 20% None Detected
7-Aminoflunitrazepam Chlordiazepoxide Flurazepam	Negative at 100,000 ng/mL Negative at 100,000 ng/mL Negative at 100,000 ng/mL Negative at 100,000 ng/mL	None Detected None Detected None Detected
<u>Buprenorphine (BUP)</u> (Buprenorphine) 10ng/mL Buprenorphine-glucuronide Norbuprenorphine Norbuprenorphine-glucuronide	Result Positive at 20 ng/mL Positive at 250 ng/mL Positive at 500 ng/mL	% Cross-Reactive 50% 4% 2%
Codeine Diacetylmorphine Hydrocodone Hydromorphone Levorphanol 6-Monoacetylmorphine Morphine Naloxone Naltrexone Oxycodone Oxymorphone Thebaine	Negative at 100,000 ng/mL	None Detected None Detected
<u>Cocaine (COC)</u> (Benzoylecgonine) 150 ng/mL Cocaine	Result Positive at 250 ng/mL	% Cross-Reactive 60%
Ecgonine Ecgonine Methyl Ester	Negative at 100,000 ng/mL Negative at 100,000 ng/mL	None Detected None Detected

Methamphetamine (mAMP) (d-Methamphetamine) 500 ng/mL Ephedrine Fenfluramine MDE (MDEA) MDMA I-Methamphetamine Phenethylamine Phenylephrine Procaine	Result Positive at 2,500 ng/mL Positive at 50,000 ng/mL Positive at 7,500 ng/mL Positive at 1,150 ng/mL Positive at 7,500 ng/mL Positive at 2,500 ng/mL Positive at 25,000 ng/mL Positive at 7,500 ng/mL Positive at 7,500 ng/mL	% Cross-Reactive 20% 1% 7% 43% 7% 20% 2% 7%
d-Amphetamine I-Amphetamine MDA Phentermine Phenmetrazine Pseudoephedrine Tyramine	Negative at 100,000 ng/mL Negative at 100,000 ng/mL	None Detected None Detected None Detected None Detected None Detected None Detected None Detected
Methadone (MTD) (Methadone) 200 ng/mL Buprenorphine (MTD Replacement) EDDP (Primary metabolite) EMDP (Secondary metabolite)	Result Negative at 100,000 ng/mL Negative at 100,000 ng/mL Negative at 100,000 ng/mL	% Cross-Reactive None Detected None Detected None Detected
Opiates-(OPI) (Morphine) 100ng/mL Codeine Diacetylmorphine Dihydrocodeine Ethylmorphine Hydrocodone Hydromorphone Levorphanol 6-Monoacetylmorphine Morphine 3-β-D-Glucuronide Morphine 6-β-D-Glucuronide Nalorphine Norcodeine Thebaine	Result Positive at 50 ng/mL Positive at 400 ng/mL Positive at 800 ng/mL Positive at 2,500 ng/mL Positive at 350 ng/mL Positive at 500 ng/mL Positive at 500 ng/mL Positive at 500 ng/mL Positive at 50,000 ng/mL Positive at 50,000 ng/mL Positive at 25,000 ng/mL Positive at 25,000 ng/mL	% Cross-Reactive 200% 200% 133% 200% 25% 13% 4% 29% 133% 20% <1%
Apomorphine Naloxone Naltrexone Oxycodone Oxymorphone	Negative at 100,000 ng/mL Negative at 100,000 ng/mL Negative at 100,000 ng/mL Negative at 100,000 ng/mL Negative at 100,000 ng/mL	None Detected None Detected None Detected None Detected None Detected
Opiates-(OPI2) (Morphine) 2000ng/mL Codeine Diacetylmorphine Dihydrocodeine Ethylmorphine Hydrocodone Hydromorphone Levorphanol 6-Monoacetylmorphine Morphine 3-β-D-Glucuronide Morphine 6-β-D-Glucuronide Norcodeine Thebaine	Result Positive at 900 ng/mL Positive at 2500 ng/mL Positive at 3800 ng/mL Positive at 600 ng/mL Positive at 1400 ng/mL Positive at 1900 ng/mL Positive at 5000 ng/mL Positive at 3800 ng/mL Positive at 5000 ng/mL Positive at 6000 ng/mL Positive at 40,000 ng/mL Positive at 40,000 ng/mL Positive at 2500 ng/mL	% Cross-Reactive 222% 80% 53% 333% 143% 105% 40% 53% 40% 53% 80%
Apomorphine Nalorphine Naloxone Naltrexone Oxycodone Oxymorphone	Negative at 100,000 ng/mL Negative at 100,000 ng/mL	None Detected None Detected None Detected None Detected None Detected None Detected
Oxycodone (OXY) (Oxycodone) 100 ng/mL Codeine Dihydrocodeine Ethylmorphine Hydrocodone Hydrocodone Morphine Morphine Morphine Morphine 6-β-D-Glucuronide Naloxone Naltrexone Norcodeine Oxymorphone	Result Positive at 5000 ng/mL Positive at 7,500 ng/mL Positive at 7,500 ng/mL Positive at 50,000 ng/mL Positive at 50,000 ng/mL Positive at 25,000 ng/mL Positive at 100,000 ng/mL Positive at 55,000 ng/mL Positive at 50,000 ng/mL Positive at 50,000 ng/mL Positive at 50,000 ng/mL Positive at 250 ng/mL Positive at 250 ng/mL	% Cross-Reactive 2% <1% 1% 1% <1% <1% <1% <1% <1% <1% <1%
Apomorphine Diacetylmorphine Levorphanol 6-Monoacetylmorphine Morphine 3-β-D-Glucuronide Nalorphine Thebaine	Negative at 100,000 ng/mL Negative at 100,000 ng/mL	None Detected None Detected None Detected None Detected None Detected None Detected None Detected

<u>Phencyclidine (PCP)</u> (Phencyclidine) 25 ng/mL 4-Hydroxyphencyclidine Result
Positive at 7,500 ng/mL % Cross-Reactive <1% Propoxyphene-(PPX) (Norpropoxyphene) 300 ng/mL Result
Positive at 50 ng/mL % Cross-Reactive Propoxyphene 600% % Cross-Reactive Result Positive at 100,000 ng/mL Negative at 100,000 ng/mL Negative at 100,000 ng/mL Cannabidiol None Detected Cannabinol None Detected I-11-Hydroxy-Δ9-THC Negative at 100,000 ng/mL None Detected ∆8 -Tetrahydrocannabinol Negative at 100,000 ng/mL None Detected <u>Tricyclic Antidepressant-(TCA)</u> (Desipramine) 300 ng/mL Amitriptyline Clozapine % Cross-Reactive Result Positive at 500 ng/mL Positive at 7,500 ng/mL 60% 4% Cyclobenzaprine Positive at 20,000 ng/mL 2% Doxepin Positive at 1,300 ng/mL 23% Imipramine Positive at 250 ng/mL 120% Positive at 200 ng/mL Positive at 700 ng/mL Positive at 500 ng/mL Positive at 75,000 ng/mL Maprotiline 100% Nordoxepin 43% Nortriptyline Perphenazine 60% <1% Positive at 50,000 ng/mL Prochlorperazine <1% Promazine Positive at 900 ng/mL 33% Protriptyline Positive at 50,000 ng/mL <1% Quetiapine (Seroquel) Positive at 10,000 ng/mL 3% Trimipramine Positive at 5,000 ng/mL 6% Carbamazepine
Carbamazepine-10, 11 epoxide Negative at 100,000 ng/mL Negative at 100,000 ng/mL Negative at 100,000 ng/mL None Detected None Detected Chlorpromazine None Detected Clomipramine Negative at 100,000 ng/mL None Detected Loxapine Negative at 100,000 ng/mL None Detected Mirtazapine Negative at 100,000 ng/mL None Detected Norclomipramine Negative at 100,000 ng/mL None Detected Olanzapine Negative at 100,000 ng/mL None Detected Phenothiazine Negative at 100,000 ng/mL Negative at 100,000 ng/mL None Detected Thiothixene None Detected