# ***FAST TOXICOLOGICAL SCREENING KIT BY LC-MS/MS – Code SC9005U***

The kit for the toxicological-forensic analysis is a screening method to analyze hundreds of compounds in positive and negative mode in urine.
It is possible to determine the following molecules:

**POSITIVE MODE:**

| | | |
|---|---|---|
| Amitrole | Alypin | Bamifylline |
| 17-alpha-Methyltestosterone | Amantadine | Bamipin |
| 2-Amino-5-chlorobenzophenone | Ambroxol | Beclamide |
| 2-Amino-5-nitrobenzophenone | Ambucetamide | Beclometasone dipropionate |
| 2-Hydroxyethylflurazepam | Amezinium | Befunolol |
| 3,4-Methylenedioxyamphetamine | Amidopyrin | Bendiocarb |
| 3,4-Methylenedioxyethylamphetamine | Amidotrizoic Acid | Benfluorex |
| 3,4-Methylenedioxymethamphetamine | Amiloride | Benodanil |
| 3,5-Diiodotyrosine | Aminodantrolene | Benperidole |
| 4-Benzamidosalicyclic acid | Aminoglutethimide | Benproperine |
| 6-Mercaptourine | Aminophenazone | Bensultap |
| 6-O-Monoacetylmorphine | Aminopromazine | Bentiromide |
| 7-Aminoclonazepam | Aminorex | Benzatropine |
| 7-Aminodesmethylflunitrazepam | Amiodarone | Benzocaine |
| 7-Aminoflunitrazepam | Amiphenazole | Benzoctamine |
| 7-Aminonitrazepam | Amisulpride | Benzododecinium |
| 9-Hydroxyrisperidone | Amitriptylin | Benzoylecgonine |
| cebutolol | Amlodipine | Benzthiazuron |
| Aceclidine | Ammoidin | Berberine |
| Aceclofenac | Amorolfine | Betamethasone 21-phosphate |
| Acemetacin | Amoxicillin | Betaxolol |
| Acepromazine | Amphetamine | Bevonium |
| Acepromazine | Amrinone | Bezafibrate |
| Acetiamin | Antazoline | Biperiden |
| Acetylaminonitroprophoxybenzene | Apalcillin | Bisoprolol |
| Aciclovir | Apomorphine | Bornaprine |
| Actinoquinol | Apophedrin | Brodifacoum |
| Adenine | Apraclonidin | Bromacil |
| Adrenalone | Aprinidine | Bromazepam |
| Ajmaline | Atenolol | Bromocriptine |
| Alachlor | Atorvastatin | Brompheniramine |
| Alclometasone-17,21-dipropionate | Atraton | Brotizolam |
| Alimemazine | Atrazine-desethyl | Bucetin |
| Alizapride | Atropine | Bufexamac |
| Allopurinol | Atropinmethylbromid | Bumetanide |
| Almitrine | Azatadine | Bunazosin |
| alpha-Hydroxyalprazolam | Azelastine | Bunitrolol |
| alpha-Hydroxytriazolam | Azintamid | Bupivacaine |
| Alprazolam | Aztreonam | Bupranolol |
| Alprenolol | Baclofen | Buprenorphine |
| Altretamine | Bambuterol | Buprofezin |

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|---|
| Buspirone |
| Butaperazine |
| Butetamate |
| Butoxycaine |
| Cafaminol |
| Caffeine |
| Candesartan |
| Caproylresorcinol |
| Captopril |
| Carazolol |
| Carbamazepine |
| Carbamazepine 10,11-epoxide |
| Carbendazim |
| Carbinoxamine |
| Carbutamide |
| Carbuterol |
| Carteolol |
| Carvedilol |
| Celiprolol |
| Cerivastatin |
| Cetirizine |
| Chinine |
| Chlorazanil |
| Chlorbenzoxamine |
| Chlorcyclizine |
| Chlordiazepoxide |
| Chloridazon |
| Chlormadinone Acetate |
| Chlormequat |
| Chlorphenethiazine |
| Chlorpheniramine |
| Chlorpromazine |
| Chlorpromazine Sulfoxide |
| Chlorprothixene |
| Cilastatin |
| Cilazapril |
| Cimetidine |
| Cinnarizine |
| Cinoxacin |
| Ciprofloxacin |
| Cisapride |
| Citalopram |
| Clarithromycin |
| Clemastine |
| Clenbuterol |
| Clobazam |

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|---|
| Clobenzepam |
| Clobutinol |
| Clomethiazole |
| Clomipramine |
| Clonazepam |
| Clonidine |
| Clopenthixol |
| Clopidogrel |
| Cloprednol |
| Clozapine |
| Cocaine |
| Codeine |
| Coniine |
| Corticosterone |
| Cortisone |
| Cotinine |
| Coumatetralyl |
| Croconazole |
| Cromoglicic acid |
| Cyamemazine |
| Cyclicine |
| Cyclophosphamide |
| Cyclovalone |
| Cyproheptadine |
| Cytarabine |
| D3-Doxepin |
| D5-Diazepam |
| Dapiprazole |
| Deflazacort |
| Demeton-S-methylsulfone |
| Denaverine |
| Desalkylflurazepam |
| Desipramine |
| Desmedipham |
| Desmethylclobazam |
| Desmethylclomipramine |
| Dexamethasone |
| Dexamethasone 21-isonicotinate |
| Dexfenfluramine |
| Dextromethorphan |
| Dextropropoxyphene |
| Diaveridine |
| Diazepam |
| Dibutyl adipate |
| Diclofenac |
| Dicycloverine |

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|---|
| Dienogest |
| Diethazine |
| Diethylcarbamazine |
| Difenoconazole |
| Difenoxuron |
| Diflucortolone |
| Dihydrocodeine |
| Dihydroergocristin |
| Dihydroergotamine |
| Dilazep |
| Diltiazem |
| Dimetindene |
| Dimetotiazine |
| Dimetridazole |
| Dioxethedrin |
| Diphenamid |
| Diphenhydramine |
| Diponium |
| Diprophylline |
| Dipyridamole |
| Disopyramide |
| Dixyrazine |
| Dobutamine |
| Dorzolamide |
| Doxapram |
| Doxepin |
| Doxylamine |
| Drofenine |
| Dummy |
| Ecgoninemethylester |
| EDDP |
| Embutramide |
| Enalapril |
| Enoximone |
| Ephedrine |
| Eprosartan |
| Esculin |
| Esmolol |
| Estazolam |
| Ethenzamide |
| Etofenamate |
| Etomidate |
| Etoposide |
| Famotidine |
| Fedrilate |
| Felbamate |

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|---|
| Felodipine |
| Fenarimol |
| Fendiline |
| Fenetylline |
| Fenfluramine |
| Fenpipramide |
| Fenpiprane |
| Fenproporex |
| Fentanyl |
| Fenticonazole |
| Fexofenadine |
| Flecainide |
| Flocoumafen |
| Floctafenine |
| Fluanisone |
| Fluconazole |
| Flumazenil |
| Flunarizine |
| Flunitrazepam |
| Fluoxetine |
| Flupentixol |
| Fluphenazine |
| Flupirtine |
| Flurazepam |
| Flurochloridone |
| Fluspirilen |
| Fluticasone Propionate |
| Fluvastadine |
| Fluvoxamine |
| Fuberidazole |
| Furalaxyl |
| Gabapentin |
| Galantamine |
| Gallopamil |
| Gemcitabine |
| Glibenclamide |
| Glibornuride |
| Gliclazide |
| Glimepiride |
| Glipizide |
| Gliquidone |
| Griseofulvin |
| Guaifenesin |
| Guanabenz |
| Guanethidine |
| Guanfacine |

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| Guanoxan |
| Haloperidol |
| Haloxyfop ethoxyethyl ester |
| Heptaminol |
| Heroin |
| Hexazinone |
| Hexobendine |
| Histamine |
| Histapyrrodine |
| Homatropine |
| Hordenine |
| Hydrocodone |
| Hydrocortisone |
| Hydrocortisone 21-acetate |
| Hydromorphone |
| Hydroxyzine |
| Hymecromone |
| Imipramine |
| Indanazoline |
| Indapamine |
| Indinavir |
| Indoprofen |
| Indoramin |
| Iopodic acid |
| Ipratropium |
| Iprazochrome |
| Irbesartan |
| Isoaminile |
| Isoconazole |
| Isoprenaline |
| Isoproturon |
| Isothipendyl |
| Isoxicam |
| Isoxsuprine |
| Kavain |
| Ketamine |
| Ketoprofen |
| Ketorolac |
| Ketotifen |
| Lamotrigine |
| Lercanidipine |
| Levocabastine |
| Levodopa |
| Levomepromazine |
| Levopropylhexedrin |
| Lidocaine |

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| Lisinopril |
| Lonazolac |
| Loperamide |
| Loratadine |
| Lorazepam |
| Lormetazepam |
| Losartan |
| Loxapine |
| Lysergide |
| Mafenide |
| Maprotiline |
| MBDB |
| Mebeverine |
| Meclizine |
| Meclofenamic acid |
| Mecloxamine |
| Meclozine |
| Medazepam |
| Mefenamic acid |
| Mefenorex |
| Mefexamide |
| Mefloquine |
| Melatonin |
| Melitracen |
| Meloxicam |
| Melperone |
| Melphalan |
| Mepindolol |
| Mepivacaine |
| Meptazinol |
| Mequitazine |
| Mescaline |
| Mesoridazine |
| Mesuximide |
| Metaclazepam |
| Metamfepramone |
| Metamitron |
| Metamphetamine |
| Metazachlor |
| Metenolone acetate |
| Metformin |
| Methabenzthiazuron |
| Methadone |
| Methaphenilene |
| Methapyrilene |
| Methaqualon |

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| Methazolamide |
| Methfuroxam |
| Methocarbamol |
| Methoprotryne |
| Methotrexate |
| Methylephedrine |
| Methylphenidate |
| Methylscopolamine |
| Methylthiouracil |
| Metipranolol |
| Metixene |
| Metoprolol |
| Metronidazole |
| Metsulfuron-methyl |
| Metyrapone |
| Mexiletine |
| Mianserin |
| Miconazole |
| Midazolam |
| Midodrine |
| Milrinone |
| Minoxidil |
| Mirtazapine |
| Mizolastine |
| Moclobemide |
| Modafinil |
| Molsidomine |
| Monocrotophos |
| Monolinuron |
| Moperone |
| Morphine |
| Morphine-3-ß-D-glucuronide |
| Moxaverine |
| Moxisylyte |
| Moxonidine |
| Nabumetone |
| Nadolol |
| Naftidrofuryl |
| Naftifine |
| Nalidixic acid |
| Nalorphine |
| Naloxone |
| Naltrexone |
| Nandrolone |
| Naphazoline |
| N-Despropylpropafenone |

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|---|
| Nebivolol |
| Nefopam |
| Nicardipine |
| Nicotinamide |
| Nicotine |
| Nifedipine |
| Nifenazone |
| Niflumic acid |
| Nimodipine |
| Nimorazole |
| Nisoldipine |
| N-Isopropylsalicylamide |
| Nitrazepam |
| Nitrendipine |
| Nizatidine |
| N-Methylephedrine |
| Nomifensine |
| Norbuprenorphine |
| Nordiazepam |
| Nordiazepam N-ethyl |
| Norephedrine |
| Norethisterone |
| Norethisterone acetate |
| Norfenefrine |
| Norfentanyl |
| Norfloxacin |
| Normorphine |
| Nortriptyline |
| Noscapine |
| Nuarimol |
| Obidoxime |
| Ofloxacin |
| Olanzapine |
| Ondansetron |
| Opipramol |
| Orciprenaline |
| Ornidazole |
| Orphenadrine |
| Oxadixyl |
| Oxamyl |
| Oxatomide |
| Oxazepam |
| Oxcarbazepine |
| Oxeladin |
| Oxetacaine |
| Oxiconazole |

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| Oxilofrine |
| Oxitriptan |
| Oxitropium |
| Oxomemazine |
| Oxprenolol |
| Oxybuprocaine |
| Oxybutynin |
| Oxycodone |
| Oxyfedrine |
| Oxymetazoline |
| Oxymorphon |
| Oxypertine |
| Papaverine |
| Paracetamol |
| Paraoxon |
| Paroxetine |
| Penfluridol |
| Pentamidine |
| Pentoxyverine |
| Perazine |
| Periciazine |
| Perindopril |
| Perphenazine |
| Pethidine |
| Phenacetin |
| Phenazone |
| Phenazopyridine |
| Phencyclidine |
| Phenelzine |
| Pheniramine |
| Phenprocoumon |
| Phenylephrine |
| Phenyltoloxamine |
| Phenytoin |
| Pholedrine |
| Physostigmine |
| Pilocarpine |
| Pindolol |
| Pioglitazone |
| Pipamperone |
| Pirbuterol |
| Pirenzepine |
| Piretanide |
| Piritramide |
| Piroxicam |
| Pizotifen |

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| Practolol |
| Prajmalium |
| Pramipexole |
| Prazepam |
| Prazosin |
| Prednisolone |
| Prednisone |
| Prilocaine |
| Primaquine |
| Primidone |
| Procainamide |
| Prochlorperazine |
| Procyclidine |
| Progesterone |
| Promazine |
| Promethazin |
| Prometryn |
| Propafenone |
| Propiconazole |
| Propionylpromazine |
| Propipocaine |
| Propiverine |
| Propranolol |
| Propyphenazone |
| Prothiopendyl |
| Protriptyline |
| Pseudoephedrine |
| Psilocin |
| Pyranocoumarin |
| Pyribenzamine |
| Pyridoxine |
| Pyrimethamine |
| Pyritinol |
| Pyrvinium |
| Quetiapine |
| Quinapril |
| Quinine |
| Ramipril |
| Ranitidine |
| Raubasine |
| Reboxetine |
| Remoxipride |
| Repaglinide |
| Reproterol |
| Reserpine |
| Riluzole |

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| Risperidone |
| Ritodrine |
| Rizatriptan |
| Ropinirole |
| Ropivacaine |
| Rosiglitazon |
| Salbutamol |
| Salicylamide |
| Scopolamine |
| Serotonin |
| Sertindole |
| Sertraline |
| Sildenafil |
| Simazine |
| Sotalol |
| Spirapril |
| Stanozolol |
| Sulfabenzamide |
| Sulfadiazine |
| Sulfadoxine |
| Sulfaethidole |
| Sulfaguanidine |
| Sulfamethizole |
| Sulfamethoxazole |
| Sulfapyridine |
| Sulfaquinoxaline |
| Sulindac |
| Sulpiride |
| Sultiame |
| Sumatriptan |
| Suxibuzone |
| Tadalafil |
| Talinolol |
| Tamoxifen |
| Telmisartan |
| Temazepam |
| Tenocixam |
| Terazosine |
| Terbinafine |
| Terbutaline |
| Terbutryn |
| Terconazole |
| Terfenadine |
| Tertalolol |
| Tetracaine |
| Tetrazepam |

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| Tetroxoprim |
| Tetryzoline |
| THC |
| THC-COOH |
| THC-OH |
| Thebacon |
| Theobromine |
| Theophylline |
| Thiabendazole |
| Thiamazole |
| Thiamine |
| Thiopropazate |
| Thioproperazine |
| Thioridazine |
| Thiram |
| Tiagabine |
| Tiapride |
| Ticlopidine |
| Tiemonium |
| Tilidine |
| Timolol |
| Tinidazole |
| Tizanidine |
| Tocainide |
| Tolazoline |
| Tolbutamide |
| Toliprolol |
| Tolnaftate |
| Tolpropamine |
| Tolycaine |
| Topotecan |
| Torasemide |
| Tramadol |
| Tranexamic acid |
| Trazodone |
| Triadimenol |
| Triallate |
| Triamterene |
| Triazolam |
| Trifluperazine |
| Trifluperidol |
| Triflupromazine |
| Trimethobenzamide |
| Trimethoprim |
| Trimipramine |
| Tripelennamine |

| |
|---|
| Triprolidine |
| Tritoqualine |
| Tromantadine |
| Tropisetron |
| Trospium |
| Tryptamine |
| Tulobuterol |
| Urapidil |

| |
|---|
| Valdecoxib |
| Valsartan |
| Vardenafil |
| Venlafaxine |
| Verapamil |
| Vincamine |
| Warfarin |
| Xantinol |

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|---|
| Xipamide |
| Xylometazoline |
| Yohimbine |
| Zolpidem |
| Zopiclone |
| Zuclopenthixol |

**NEGATIVE MODE:**

| |
|---|
| 2-Amino-5-nitrobenzophenone |
| 4-Benzamidosalicyclic acid |
| 5-(p-Methylphenyl)-phenylhydantoin |
| 5-Aminosalicylic acid |
| 6-Mercaptourine |
| Acetazolamide |
| Acetylsalicylic Acid |
| Adenine |
| Adenosine |
| Adrenalone |
| Alprostadil |
| Amobarbital |
| Amoxicillin |
| Atorvastatin |

| |
|---|
| Azelaic Acid |
| Aztreonam |
| Benserazid |
| Benzthiazide |
| Bezafibrate |
| Brallobarbital |
| Carbenoxolone |
| Chlorothiazide |
| Cimetidine |
| Cinchonine |
| Cortisone |
| Dinoprost |
| Epinephrine |
| Ethyl glucuronide |
| Ethyl glucuronide-D5 |

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| Ethyl sulfate |
| Ethyl sulfate-D5 |
| Furosemid |
| Hydrochlorothiazide |
| Morphin-3ßD-glucuronide-D3 |
| Pentobarbital |
| Phenobarbital |
| Propallylonal |
| THC-COOH |
| THC-OH |
| Triamcinolone |

# ***FAST TOXICOLOGICAL SCREENING KIT – Code SC9005U***

## ***TECHNICAL FEATURES***

**Principle of the Method:**

After optimizing the retention times of the analytes by means of the injection of the Mix Standard in LC-MS/MS, it will be possible to inject the diluted urine to determine intoxication by unknown molecules.

***Components of the kit (500 tests):*** All reagents are ready to use and stable 3 years at 2–8 °C.

**Reagent A –** Reconstitution Solution, **1 x 55 ml**

**Reagent B –** Hydrolysis Enzyme, **5 x 1 ml**

**Reagent C –** Diluting Solution with con Internal Standard, **1 x 250 ml**

**Reagent D –** Standard mix Solution, **1 x 5 ml**

**Reagent M1** – Mobile Phase M1, **18 x 500 ml**

**Reagent M2** – Mobile Phase M2, **18 x 500 ml**

**Minimum Instrumental equipment:**

Instrument API 3200 QTRAP®
Instrument API 4000 - 4500 QTRAP®
Instrument API 5500 QTRAP®
Operational Computer

**Optional equipment:**

Autosampler

**Urine Collection Procedure:**

Take 10 ml of urine
Stable for about 3 months at –20 °C
Centrifuge the urine before analysis.

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eureka Lab Division

CE

**This product meets all the requirements of Directive 98/79 / EC on in vitro diagnostic medical devices (IVD). The EC declaration of conformity is available on request.**

## ***PREANALYTICAL PHASE***

PREPARATION OF STANDARD MIX FOR SYSTEM SET UP:

1) Dilute 1 at 10 in Methanol the **Reagent D –** Standard mix Solution.

2) Prepare the following dilutions using the **Reagent M1** – Mobile Phase M1.

- For API 3200 QTRAP® systems: add 100 ul of solution diluted at step 1 and add 900 µL of **Reagent M1** – Mobile Phase M1
- For API 4000 - 4500 QTRAP® systems: add 10 ul of solution diluted at step 1 and add 90 ul of Methanol and 900 µL of **Reagent M1** – Mobile Phase M1
- API 5500 QTRAP® systems: add 2 ul of solution diluted at step 1 and add 98 ul of Methanol and 900 µL of **Reagent M1** – Mobile Phase M1

**INJECTION** :

- Inject 10 - 30 ul

This standard should be injected at the beginning of each session as a System Suitability Test to check the instrumental and chromatographic performance.

## ***ANALYTICAL PROCEDURE***

Enzyme reconstitution

**Reagent B** – Enzyme of Hydrolysis it should be reconstituted with 9,0 ml of **Reagent A** – Reconstitution Solution.
**After reconstitution, the enzyme is stable 1 years at 2–8 °C.**

**PREPARATION OF URINE SAMPLES**

**STEP 1 :** Sample Hydrolysis

In eppendorf dispense in sequence:

- 500 ul of SAMPLES + 100 ul of Enzyme previously reconstituted.

**STEP 2 :** Incubate at 60 °C for 3 hours.

***Cooling***

**STEP 3 :** Take 100 µl of hydrolized and add 500 µl of **Reagent C –** Diluting + Internal Std

**INJECTION** :

- Injection 30 ul

# FAST TOXICOLOGICAL SCREENING KIT – *Warnings*

(THIS KIT HAS BEEN DEVELOP FOR SCIEX LC/MS SYSTEMS Q-TRAP CONFIGURATION)

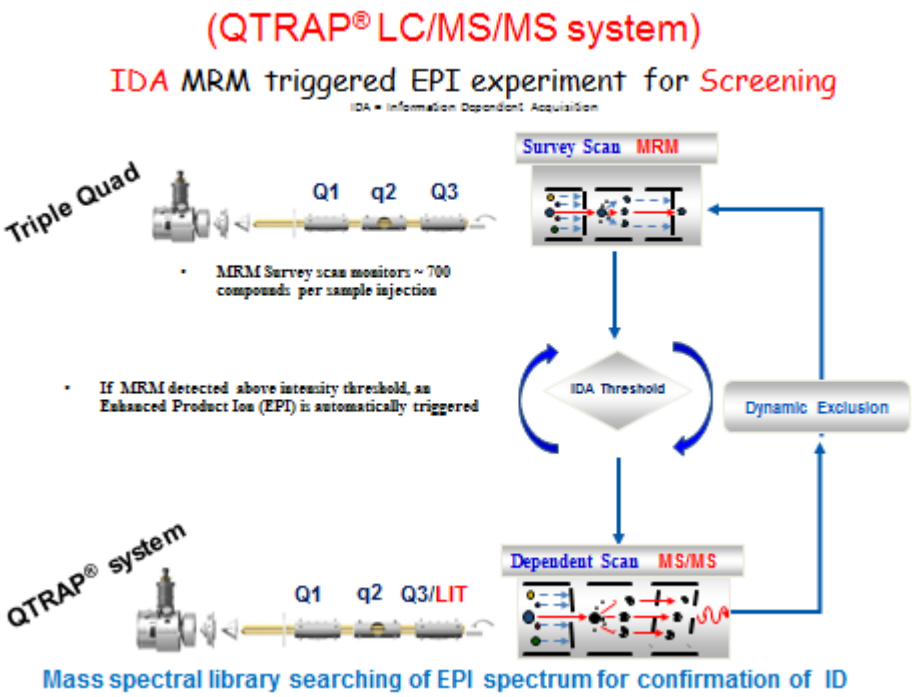
INSTRUMENTAL CONDITIONS:
Cromatografic Gradient

| Gradient Profile Time (min) | Flow Rate (µL/min) | A (%) | B (%) |
|---|---|---|---|
| 0.00 | 500 | 90 | 10 |
| 10.00 | 1000 | 10 | 90 |
| 15.00 | 1000 | 10 | 90 |
| 15.50 | 500 | 90 | 10 |
| 18.00 | 500 | 90 | 10 |

Flow rate: 0.5 mL/min
Column oven temperature: 40°C

Separation Column

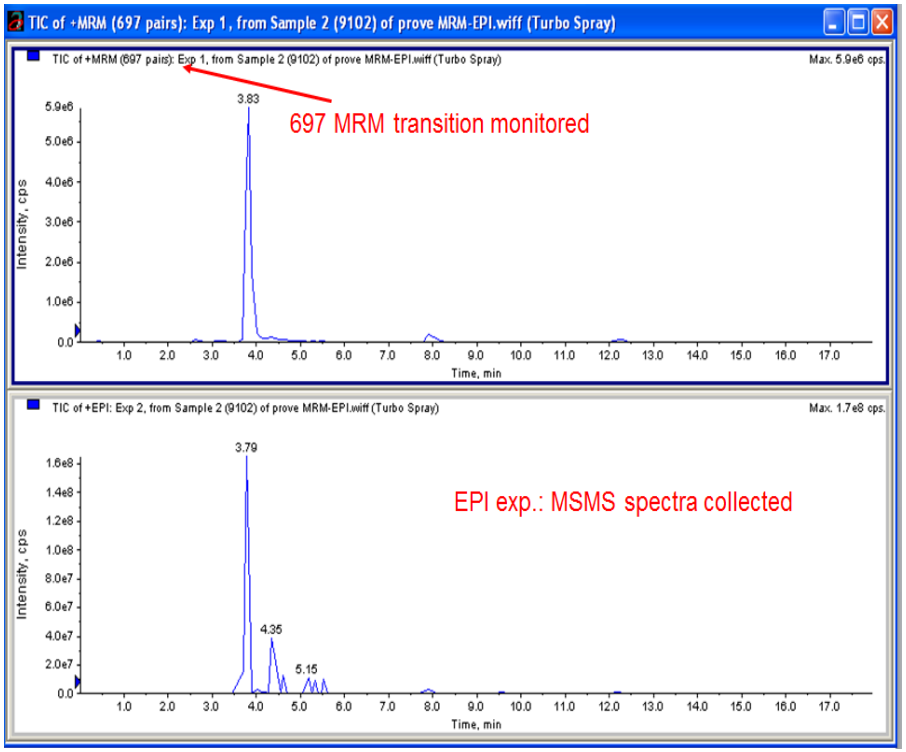
Drug Screen and Quant Analytical Column, 5 µm 60 Å, PFP Propyl Column, 50 x 2.1 mm (P/N 9169552)

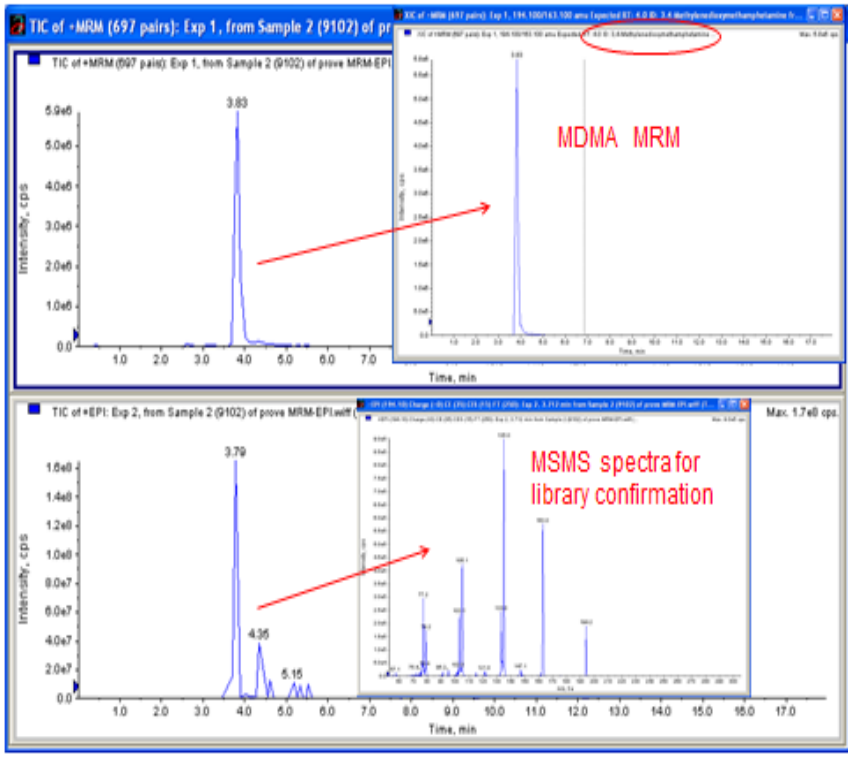


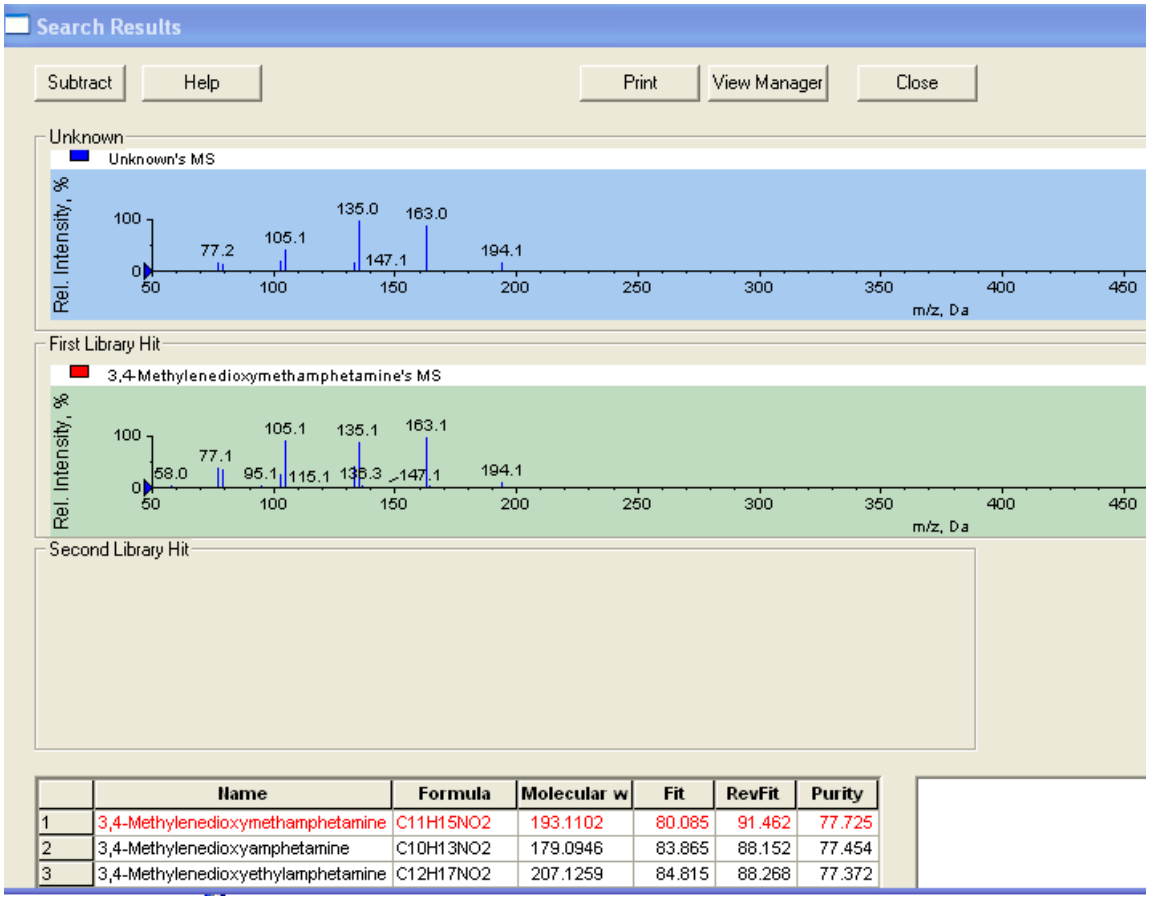

| CODE | ACCESSORIES DESCRIPTION | PACKAGING |
|---|---|---|
| **SRE9169552** | Drug Screen and Quant Analytical Column, 5 µm 60 Å, PFP Propyl Column, 50 x 2.1 mm | 1 PK |
| **SK9001** | PEEK Tubing O.D. × I.D. 1/16 in. × 0.005 in., red<br>PEEK Tubing O.D. × I.D. 1/16 in. × 0.010 in., blue<br>Peek fitting One-piece fingertight F130-X | 1 PK |
| **S90199511** | Prefilters Javelin | 1 x 10 PK |

# FAST TOXICOLOGICAL SCREENING KIT

*(Reference Chromatograms/Spectra)*






| | Name | Formula | Molecular w | Fit | RevFit | Purity |
|---|---|---|---|---|---|---|
| 1 | 3,4-Methylenedioxymethamphetamine | C11H15NO2 | 193.1102 | 80.085 | 91.462 | 77.725 |
| 2 | 3,4-Methylenedioxyamphetamine | C10H13NO2 | 179.0946 | 83.865 | 88.152 | 77.454 |
| 3 | 3,4-Methylenedioxyethylamphetamine | C12H17NO2 | 207.1259 | 84.815 | 88.268 | 77.372 |