

This package insert applies to any combination of multi-drug tests and adulteration control tests. Therefore, some information on the performance characteristics of the product may not be relevant to your test. Please refer to the labels on the packaging and the prints on the test device to identify which drugs and adulteration controls are included in your test.

INTENDED USE

Multi-Drug Urine Test Dipcard is a rapid urine screening test. It's a lateral flow, one-step immunoassay for the qualitative detection of specific drugs and their principal metabolites in human urine at specified cut-off concentrations, with additional semi quantitative adulteration controls. The multi-drug test device can be combined with the adulteration controls such as Creatinine (CRE), Glutaraldehyde (GLU), Nitrite (NIT), pH, Specific Gravity (S.G.), and/or Oxidants/Pyridinium Chlorochromate (OXI/PCO), which is used for the determination of diluted or adulterated urine specimens. The adulteration control is an important pre-screening test for drug-testing.

Drug (Identifier)	Calibrator	Cut-off (ng/mL)
Amphetamine (AMP 1000)	d-Amphetamine	1000
Amphetamine (AMP 500)	d-Amphetamine	500
Amphetamine (AMP 300)	d-Amphetamine	300
Barbiturates (BAR 300)	Secobarbital	300
Benzodiazepines (BZO 300)	Oxazepam	300
Benzodiazepines (BZO 200)	Oxazepam	200
Benzodiazepines (BZO 100)	Oxazepam	100
Buprenorphine (BUP 10)	Buprenorphine	10
Cocaine (COC 300)	Benzoylgonine	300
Cocaine (COC 150)	Benzoylgonine	150
Cocaine (COC 100)	Benzoylgonine	100
Cannabinoids (THC 40)	11-nor- Δ^9 -THC-9-COOH	40
Cannabinoids (THC 25)	11-nor- Δ^9 -THC-9-COOH	25
Cannabinoids (THC 25)	11-nor- Δ^9 -THC-9-COOH	25
Cotinine (COT)	Cotinine	200
Ethyl Glucuronide (ETG)	Ethyl Glucuronide	500
Fentanyl (FTY 50)	Fentanyl	50
Fentanyl (FTY 20)	Fentanyl	20
Gabapentin (GAB)	Gabapentin	1000
Ketamine (KET 1000)	Ketamine	1000
Ketamine (KET 500)	Ketamine	500

1	2	3	4	5	6
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Phencyclidine (PCP)
Phencyclidine, commonly known as PCP or "angel dust," is used primarily as recreational drug due to its hallucinogenic effects. It is generally self-administered by intravenous injection or by inhalation and concentrates fastest in fatty tissues and the brain. The effects of PCP are very much dose related. Small amounts of Phencyclidine (PCP) are central nervous system stimulants that produce alertness, wakefulness, increased energy, increased heat rate, and decreased sense of pain and touch, and an overall feeling of well being. Large doses of Phencyclidine (PCP) can result in death due to convulsions, heart and lung failure and coma. Large repeated doses of Phencyclidine (PCP) could develop tolerances and physiological dependence and lead to its abuse. PCP can be found in urine within 4 to 6 hours after use and will remain in urine for 7 to 14 days. Phencyclidine is excreted in the urine as an unchanged drug (4% to 19%) and conjugated metabolites (25% to 30%).

Propoxyphene (PPX)
Propoxyphene is a prescription drug for the relief of pain. Overdose of propoxyphene can have the symptoms including analgesia, stupor, respiratory depression and coma. The half-life of propoxyphene is 8 to 24 hours. Propoxyphene reaches its peak in 1 to 2 hours after oral administration.

Synthetic Cannabis (K2/K3)
Synthetic cannabis is a psychoactive designer drug derived of natural herbs sprayed with synthetic chemicals that, when consumed, allegedly mimic the effects of cannabis, it is best known by the brand names K2 and Spice. Synthetic cannabis act on the body in a similar way to cannabinoids naturally found in cannabis, such as THC. A large and complex variety of synthetic cannabis most often cannabinolhexanoate, JWH-018, JWH-073, or HU-210, are used in an attempt to avoid the laws that make cannabis illegal, making synthetic cannabis a designer drug. Although synthetic cannabis does not produce positive results in drug tests for cannabis, it is possible to detect its metabolites in human urine. The synthetic cannabinoids contained in synthetic cannabis products have been made illegal in many European countries. On November 24, 2010, the U.S. Drug Enforcement Administration announced it would use emergency powers to ban many synthetic cannabinoids within a month. As of March 1, 2011, five cannabinoids, JWH-018, JWH-073, CP-47,497, JWH-200, and cannabinolhexanoate are now illegal in the US. AB-PINACA (K3 Spice) was synthesized by Pfizer in 2009 for analgesic use. The drug gained popularity in Japan by 2012, and emerged in other countries by 2013. In under a year, AB-PINACA became one of the most commonly used drugs in the U.S. Synthetic cannabinoids is 1.5 times more potent than regular cannabis and is responsible for a number of hospitalizations and deaths as a result.

Tricyclic Antidepressants (TCA)
Tricyclic Antidepressants are a group of antidepressant drugs that are commonly used for treatment of depressive disorders. TCAs can be taken orally or by intramuscularly injection (IM). The symptoms of TCAs overdoses include agitation, confusion, hallucinations, hyperthermia, seizures, and EKG changes. The half-life of TCA varies from a few hours to several days. The commonly used TCAs are excreted with a very low percentage of unchanged drugs in the urine. Therefore, detection of the metabolites of TCAs in human urine has been used for screening the abuse of TCAs.

Tramadol (TRA)
Tramadol is a quasi-narcotic analgesic used in the treatment of moderate to severe pain.

7	8	9	10	11	12
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	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
BAR 300	Cutoff	50	14/36	12/38	14/36
	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
BZO 300	Cutoff	50	11/39	13/37	12/38
	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
BZO 200	Cutoff	50	13/37	13/37	13/37
	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
BZO 100	Cutoff	50	12/38	13/37	13/37
	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
	-50% Cutoff	50	50/0	50/0	50/0

BZO 100	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
BUP 10	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
	Cutoff	50	16/34	15/35	15/35
	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
COC 300	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
	Cutoff	50	12/38	13/37	12/38
	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
COC 150	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
	Cutoff	50	15/35	14/36	14/36
	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
COC 100	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
	Cutoff	50	14/36	14/36	14/36

MDMA 500	Cutoff	50	10/40	10/40	11/39
	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
MDMA 300	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
	Cutoff	50	11/39	11/39	10/40
MOP 300	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
	+100% Cutoff	50	0/50	0/50	0/50
MOP 100	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
	Cutoff	50	15/35	15/35	15/35
	-25% Cutoff	50	50/0	50/0	50/0
OPI 2000	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50

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OPI 2000	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
	Cutoff	50	10/40	9/41	10/40
	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
OXY 100	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
PCP 25	+25% Cutoff	50	0/50	0/50	0/50
	Cutoff	50	15/35	16/34	14/36
	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
PPX 300	-100% Cutoff	50	50/0	50/0	50/0
	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50

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K2 (50)	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
	Cutoff	50	13/37	13/37	13/37
K2 (25)	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
	+100% Cutoff	50	0/50	0/50	0/50
K3 (10)	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
	Cutoff	50	13/37	14/36	14/36
	-25% Cutoff	50	50/0	50/0	50/0
TCA 1000	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50

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TCA 1000	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
TRA 1000	Cutoff	50	14/36	13/37	13/37
	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
TRA 200	+100% Cutoff	50	0/50	0/50	0/50
	+75% Cutoff	50	0/50	0/50	0/50
	+50% Cutoff	50	0/50	0/50	0/50
	+25% Cutoff	50	0/50	0/50	0/50
	Cutoff	50	13/37	13/37	13/37
TRA 100	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
	+100% Cutoff	50	0/50	0/50	0/50

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6-MAM 10	-25% Cutoff	50	50/0	50/0	50/0
	-50% Cutoff	50	50/0	50/0	50/0
	-75% Cutoff	50	50/0	50/0	50/0
	-100% Cutoff	50	50/0	50/0	50/0
	Cutoff	50	14/36	15/35	15/35

B. Specificity and Cross-reactivity
The following table lists the concentration of compounds (ng/mL) above which the Multi-Drug Urine Test Dpcard identified positive results at a read time of 5 minutes.

Compound	Concentration (ng/mL)
Amphetamine (AMP 1000)	
d-Amphetamine	1,000
d/l-Amphetamine	3,000
l-Amphetamine	50,000
(+/-) 3,4-methylenedioxyamphetamine (MDA)	5,000
Phentermine	3,000
Hydroxyamphetamine	10,000
d-Methamphetamine	>100,000
l-Methamphetamine	>100,000
(+/-)3,4-Methylenedioxyethylamphetamine (MDEA)	>100,000
(+/-)3,4-Methylenedioxyamphetamine (MDMA)	>100,000
(1R,2S)-(-)-Ephedrine	>100,000
β-Phenylethylamine	100,000
Tryptamine	100,000
p-Hydroxynorephedrine	100,000
Phenylpropanolamine	>100,000
(±)Phenylpropanolamine	>100,000
p-Hydroxyamphetamine	100,000
d/l-Norephedrine	100,000
Benzphetamine	>100,000
l-Epinephrine	>100,000
d/l-Epinephrine	>100,000
Amphetamine (AMP 500)	
d-Amphetamine	500
d/l-Amphetamine	1,500
l-Amphetamine	25,000
(+/-) 3,4-methylenedioxyamphetamine (MDA)	2,500
Phentermine	1,500
Hydroxyamphetamine	5,000
d-Methamphetamine	>100,000
l-Methamphetamine	>100,000
(+/-)3,4-Methylenedioxyethylamphetamine (MDEA)	>100,000

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(+/3,4-Methylenedioxyamphetamine (MDMA)	>100,000
	>100,000
	>100,000
	>100,000
	>100,000
Amphetamine (AMP 300)	300
	900
	15,000
	1,500
	900
Barbiturates (BAR 300)	300
	1,000
	75
	250
	100

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Benzodiazepines (BZO 300)	300
	150
	1,500
	100
	500
Benzodiazepines (BZO 200)	200
	100
	1,000
	75
	500

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Nitrazepam	1,000
Nordiazepam	500
Temazepam	200
Triazolam	750
Desalkylflurazepam	500
Lorazepam	4,000
Norchlordiazepoxide	500
Nordazepam	750
Egonine	1,000
Demoxepam	4,000
Flurazepam	500
Benzodiazepines (BZO 100)	
Oxazepam	100
Alprazolam	50
α-Hydroxyalprazolam	500
Bromazepam	50
Chlordiazepoxide	300
Clobazam	250
Clonazepam	500
Clorazepate dipotassium	50
Diazepam	300
Estazolam	300
Flunitrazepam	1,000
Midazolam	500
Nitrazepam	500
Nordiazepam	300
Temazepam	150
Triazolam	500
Desalkylflurazepam	300
Lorazepam	2,500
Norchlordiazepoxide	300
Nordazepam	500
Delorazepam	500
Demoxepam	2,500
Flurazepam	300
Buprenorphine (BUP 10)	
Buprenorphine	10
Norbuprenorphine	50
Buprenorphine 3-D-glucuronide	10
Norbuprenorphine 3-D-glucuronide	10
Morphine	>100,000

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Oxymorphone	>100,000
Hydromorphone	>100,000
Cocaine (COC 300)	
Benzoyllecgonine	300
Cocaine HCl	750
Cocacethylene	12,500
Egonine	30,000
Egonine methyl ester	>100,000
Norocaine	>100,000
Cocaine (COC 150)	
Benzoyllecgonine	150
Cocaine HCl	500
Cocacethylene	5,000
Egonine	15,000
Egonine methyl ester	>100,000
Norocaine	>100,000
Cocaine (COC 100)	
Benzoyllecgonine	100
Cocaine HCl	250
Cocacethylene	2,500
Egonine	5,000
Egonine methyl ester	>100,000
Norocaine	>100,000
Cannabinoids (THC 50)	
11-nor-Δ ⁹ -THC-9-COOH	50
11-nor-Δ ⁸ -THC-9-COOH	30
(±)-11-Hydroxy-Δ ⁹ -THC	2,500
Δ ⁹ -Tetrahydrocannabinol	2,000
Δ ⁹ -Tetrahydrocannabinol	5,000
Cannabinol	10,000
Cannabidiol (CBD)	100,000
(±)-11-nor-9-carboxy-Δ ⁹ -THC	100
11-nor-Δ ⁹ -THC-carboxy glucuronide	100
Cannabinoids (THC 40)	
Fentanyl	20
Carfentanyl	50
Sufentanyl	150
11-nor-Δ ⁹ -THC-9-COOH	40
11-nor-Δ ⁸ -THC-9-COOH	30
(±)-11-Hydroxy-Δ ⁹ -THC	2,000

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Δ ⁸ -Tetrahydrocannabinol	1,500
Δ ⁹ -Tetrahydrocannabinol	4,000
Cannabinol	10,000
Cannabidiol (CBD)	100,000
(±)-11-nor-9-carboxy-Δ ⁹ -THC	100
11-nor-Δ ⁹ -THC-carboxy glucuronide	100
Cannabinoids (THC 25)	
11-nor-Δ ⁹ -THC-9-COOH	25
(±)-11-Hydroxy-Δ ⁹ -THC	15
2-Fluorodeschloroketamine	1,250
Δ ⁹ -Tetrahydrocannabinol	1,000
Δ ⁹ -Tetrahydrocannabinol	2,500
Cannabinol	5,000
Cannabidiol (CBD)	75,000
(±)-11-nor-9-carboxy-Δ ⁹ -THC	50
11-nor-Δ ⁹ -THC-carboxy glucuronide	75
Cotinine (COT)	
Cotinine	200
Ethyl Glucuronide (ETG)	
Ethyl Glucuronide	500
Ethanol	>100,000
Glucuronic acid	>100,000
Methanol	>100,000
D-glucose	>100,000
Fentanyl (FTY 50)	
Fentanyl	50
Carfentanyl	150
Sufentanyl	500
Alfentanyl	>10,000
Norfentanyl	>10,000
Buspirone	>10,000
Fentanyl (FTY 20)	
Fentanyl	20
Carfentanyl	50
Sufentanyl	150
Alfentanyl	>10,000
Norfentanyl	>10,000

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Buspirone	>10,000
Gabapentin (GAB)	
Gabapentin	1000
Pregabalin	75,000
Vigabatrin	>100,000
Salicylic acid	>100,000
Valproic acid	>100,000
Ketamine (KET 1000)	
Ketamine	1,000
2-Fluorodeschloroketamine	2,000
Methadone	50,000
Pethidine	12,500
Methylamphetamine	12,500
Methoxyphenamine	12,500
Promethazine	25,000
Phencyclidine	25,000
Ketamine (KET 500)	
Ketamine	500
2-Fluorodeschloroketamine	1,000
Methadone	25,000
Pethidine	7,500
Methylamphetamine	7,500
Methoxyphenamine	7,500
Promethazine	12,500
Phencyclidine	12,500
Kratom (KRA 250)	
Mitragynine	250
7-Hydroxymitragynine	500
Kratom (KRA 100)	
Mitragynine	100
7-Hydroxymitragynine	150
Methamphetamine (MET 1000)	
d-Methamphetamine	1,000
d-Amphetamine	50,000
Chloroquine	50,000
(1R,2S)-(-)-Ephedrine	50,000

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Hydroxytyramine	Acetaminophen
Acetylsalicylic Acid	Albumin (100 mg/dL)
Albuterol sulfate (Proair HFA)	Aminophylline
Aminopyrine	Amoxicillin
Ampicillin	Apomorphine
Atiprazole	Aspartame
Atomoxetine	Atorvastatin Calcium
Atropine	Azithromycin
Benztic acid	Benzoicaine
Benzoic acid	Bilirubin
Bupropion	Captopril
Carbamazepine	Cefradine
Cephalexin	Chloral Hydrate
Chlorphenicol	Chlorothiazide
Chlorpheniramine	Chlorpromazine
Cholesterol	Ciprofloxacin Hydrochloride
Citalopram	Clarithromycin
Clonidine	Clozapine
Conjugated Estrogens	Cortisone
Cotinine	Creatinine
D,L- isoproterenol	D,L-Octopamine
D,L-Propranolol	D,L-Tryptophan
D,L-Tyrosine	Deoxycorticosterone
Dextromethorphan	Diclofenac
Diflunisal	Digoxin
Diphenhydramine	Doxapamine HCl
D-Pseudoephedrine	Duloxetine
Ergonine methyl ester	Erythromycin
Esomeprazole Magnesium	Ethanol (1%)
Fenoprofen	Fluoxetine Hydrochloride
Furosemide	Gabapentin
Genitisc Acid	Glucose
Hemiprosin	Hydralazine
Hydrochlorothiazide	Hydrocortisone
Ibuprofen	Isoxsuprine
Ketamine	Ketoprofen
Labetalol	Levofloxacin Hydrochloride
Levonorgestrel	Levthyroxine Sodium
Lidocaine Hydrochloride	Lisinopril
Loperamide	Lorazepam
Magnesium	Meperidine
Meprobamate	Methoxyphenamine (except MET test)