Multi-Drug Hair Test

Catalog No.: See Box label

For forensic use only.

INTENDED USE

Multi-Drug Hair Test offers qualitative detection of the following drugs of abuse and their principal metabolites in human hair at specified cut-off levels: 6-Monoacetylmorphine (6-MAM), Amphetamine (AMP), Barbital (BAR), Buprenorphine （BUP）, Benzodiazepines (BZO), Cocaine (COC), Fentanyl (FTY), Synthetic Marijuana (K2), Ketamine (KET), Methylenedioxymethamphetamine (MDMA), Methamphetamine (MET/mAMP), Opiate (OPI), Oxycodone (OXY), Phencyclidine (PCP) Tramadol (TRA) and Methadone(MTD)

Drug (Identifier)	Calibrator	Cut-off level
6-Monoacetylmorphine (6-MAM)	6-Monoacetylmorphine	200 pg/mg
Amphetamine (AMP)	D-Amphetamine	500 pg/mg
Barbital (BAR)	Secobarbital	200 pg/mg
Buprenorphine （BUP）	Buprenorphine	40 pg/mg
Benzodiazepines (BZO)	Oxazepam	100 pg/mg
Cocaine (COC)	Benzoylecgonine	500 pg/mg
Fentanyl (FTY)	Fentanyl	40 pg/mg
Synthetic Marijuana (K2)	JWH-018,JWH-073	200 pg/mg
Ketamine (KET)	Ketamine	1000 pg/mg
Methylenedioxymethampheta mine (MDMA)	d,l-Methylenedioxymethamph etamine	500 pg/mg
Methamphetamine (MET/mAMP)	D-Methamphetamine	200 pg/mg
Opiate (OPI)	Morphine	200 pg/mg
Oxycodone (OXY)	Oxycodone	200 pg/mg
Phencyclidine (PCP)	Phencyclidine	300 pg/mg
Tramadol (TRA)	Tramadol	200 pg/mg
Methadone(MTD)	Methadone	200 pg/mg

Multi-Drug Hair Test offers any combinations from 2 to 16 drugs of abuse tests. It is intended for forensic use only.

It is not intended to distinguish between prescription use or abuse of these drugs. Clinical consideration and professional judgment should be applied to any drug of abuse test result, particularly in evaluating a preliminary positive result.

The tests provide only preliminary results. To obtain a confirmed analytical result, a more specific alternate chemical method must be used. Chromatography/Mass Spectrometry (GC/MS) or Liquid Chromatography/Tandem Mass Spectrometry (LC/MS-MS) is the recommended confirmatory method.

PRINCIPLE

This test employs competitive immunochromatography method to detect the presence of 6-Monoacetylmorphine (6-MAM), Amphetamine (AMP), Barbital (BAR), Buprenorphine （BUP）, Benzodiazepines (BZO), Cocaine (COC), Fentanyl (FTY), Synthetic Marijuana (K2), Ketamine (KET), Methylenedioxymethamphetamine (MDMA), Methamphetamine (MET/mAMP), Opiate (OPI), Oxycodone (OXY), Phencyclidine (PCP), Tramadol (TRA) and Methadone (MTD) in human hair specimens. After the hair specimen is collected from the donor, it is placed in the hair processing tube containing dissolving solution and grinding beads. The hair processing tube is then put into the hair processor to enhance the exposure of analytes. After centrifugation, the specimen is transferred to the test cube where the analyte will react with the reagents contained in the test strips.

During the test, the hair specimen mixes with the drug-specific monoclonal antibody conjugate and flows across the membrane. When sample drug levels are zero or below the target cutoff, drug monoclonal antibody conjugate binds to the respective drug-protein conjugate immobilized in the Test Region (T). This produces a colored band in the Test Region (T) that, regardless of its intensity, indicates the negative result.

When drug concentrations in the sample are at or above the target cutoff, the drug in the sample binds to the respective drug monoclonal antibody conjugate and prevent the respective drug monoclonal antibody conjugate from binding to the respective drug-protein conjugate immobilized in the Test Region (T). This prevents the development of a colored band in the Test Region (T), regardless of its intensity, indicates the preliminary positive result.

To serve as the procedure control, a colored band will appear at the Control Region (C) if the test has been performed properly.

PRECAUTIONS

1. The test kit is for external use only. Do not swallow.
2. Discard after use. The test kit cannot be used more than once.
3. Do not use the test kit beyond expiration date.
4. Do not use the test kit if the pouch is punctured or not well sealed.
5. Discard all the components as medical waste after testing.
6. Do not overload the hair processing tube. Recommend to add 30 ± 5 (no more than 50) mg of hair specimen.
7. Use appropriate precautions in the collection, handling, storage and disposal of hair specimen and kit components. Wear appropriate personal protective equipment (e.g. lab coat, gloves and protective eyewear) when handing the hair specimen.
8. Wash hands thoroughly afterwards.

MATERIAL

Materials Provided

1. 25 Hair test cubes, each in one pouch with two desiccants. The desiccants are for storage purposes only and are not used in the test procedure.
2. 25 Hair processing tubes (1.3 mL/tube), each tube contains:
   - Grinding bead
   - Hair dissolving solution containing 0.05% sodium azide
3. 1 Package insert

Material Required but Not Provided

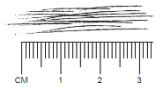
1. Timer or clock
2. Hair collection kit: scissor, tweezer, hair clip and alcohol wipe
3. Electronic balance (precision 0.001g or lower) （optional）
4. Hair processor
5. Gloves, laboratory coat and protective eyewear

STORAGE AND STABILITY

- Store at 4℃-30℃ (39℉-86℉) in the sealed pouch up to the expiration date. See expiry date on the pouch.
- Keep away from direct sunlight, moisture and heat.
- Use the hair test cube within 1 hour after opening the foil pouch.
- DO NOT FREEZE

SPECIMEN COLLECTION

Clip 3cm hair specimen from scalp. Recommended weight of hair specimen is 25-50 (no more than 50) mg. The following is the example of 30 mg hair specimen.



30 mg hair specimen example

Note: Normally, according to the 3cm long hair calculation, 30mg is about 50 hairs.

1. At room temperature, the specimens should be tested immediately after collection.
2. Processed hair specimen solution can be valid for 3 days at 2℃-8 ℃ (35.6 ℉ -46.4 ℉). Shake the hair specimen processing solution well before testing.
3. DO NOT contaminate the hair specimen.

Notes about collection:
1) If necessary, collect additional hair specimen from other locations on head.
2) For shaved/short hair, locate the longest hair if possible and make multiple cuts from different locations to collect sufficient amount of hair specimen needed.

For detailed hair collection instructions, please refer to the collection user manual that provided by manufacturer or distributor.

TEST PROCEDURE

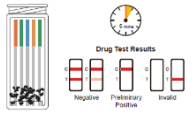
Please read the instructions carefully before testing. Test should be performed at room temperature 18ºC-30ºC (65ºF-86ºF).

1. Remove the hair test cube from the foil pouch by tearing at the notch. Take out the hair processing tube from the kit. Lay the test cube on the table and mark it.
2. Put the hair specimen into the hair processing tube and tightly screw the cap of the tube (Figure (1)).
3. Put the processing tube into the hair processor (Figure (2)), then set the parameters (Refer to the user manual of hair processor).
4. Start the machine for processing. Take out the processing tube and pour all the contents into the testing cube (Figure (3)).
5. Read results at 5-10 minutes. Do not read after 10 minutes (Figure (4)).

Hair Processing Tube
(1)

(2)

Hair Test Cube
(3)



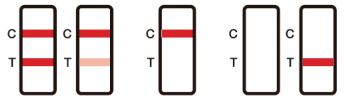
(4)

INTERPRETATION OF RESULTS

Negative (-)
A colored band is visible in each Control Region (C) and the appropriate Test Region (T).

Preliminary Positive (+)
A colored band is visible in each Control Region (C). No colored band appears in the appropriate Test Region (T).

Invalid
If a colored band is not visible in each of the Control Region (C) or a colored band is only visible in the Test Region (T), the test is invalid. Another test should be run to re-evaluate the specimen. If test still fails, please contact the distributor with the lot number.



Note: There is no meaning attributed to line color intensity or width.

TEST LIMITATIONS

1. Proper specimen collection, storage and processing are critical to the performance of the test. Carefully read the instruction of use prior to testing.
2. This test is used to detect the certain drugs or metabolites at specific cut-off levels in hair specimen. Hair growing speed, and drug abuse frequency and/or amount may affect the test results. Negative result doesn't absolutely mean that the drugs were not taken. Maybe small amount of drugs was taken which produces lower concentration than the cutoff level, or may be the drugs were taken a very short period ago. If the drug abuse is still suspended, other testing methods should be considered.
3. Passive exposure to drugs can possibly cause preliminary result.

PERFORMANCE CHARACTERISTICS

1. ACCURACY

A side-by-side comparison study was conducted using the Multi-Drug Hair Test and LC-MS. A total of 4478 hair specimens were analyzed. Results are listed as followed:

6-MAM

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	73	5	78
Negative	0	291	291
Total	73	296	369

Positive agreement rate: 100%（95% CI: 95.00%~100%）
Negative agreement rate: 98.34%（95% CI: 96.17%~99.29%）
The total agreement rate: 98.66% (95% CI：96.91%~99.43%)

AMP

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	134	5	139
Negative	0	452	452
Total	134	457	591

Positive agreement rate: 100.00%（ 95%CI : 97.21%~100%）
Negative agreement rate: 98.91%（ 95%CI : 97.46%~99.53%）
The total agreement rate: 99.15%（ 95%CI : 98.03%~99.64%）

BAR

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	45	2	47
Negative	3	115	118
Total	48	117	165

Positive agreement rate: 93.75%（95% CI:82.80%~98.69%）
Negative agreement rate: 98.29%（95% CI:93.96%~99.79%）
The total agreement rate: 96.97%（95% CI:93.07%~99.01%）

BUP

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	58	0	58
Negative	4	382	386
Total	62	382	444

Positive agreement rate: 93.75%（95% CI:84.55%~97.463%）
Negative agreement rate: 100.00%（95% CI:99.00%~100.00%）
The total agreement rate: 97.10%（95% CI:97.71%~99.65%）

BZO

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	25	1	26
Negative	2	52	54
Total	27	53	80

Positive agreement rate: 92.59%（95% CI:75.71%~99.09%）
Negative agreement rate: 98.11%（95% CI:89.11%~99.95%）
The total agreement rate: 96.25%（95% CI:89.43%~99.22%）

COC

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	50	1	51
Negative	1	50	51
Total	51	51	102

Positive agreement rate: 98.04%（95% CI:89.55%~99.95%）
Negative agreement rate: 95.04%（95% CI:89.52%~98.16%）
The total agreement rate: 95.93%（95% CI:91.79%~98.35%）

FTY

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	56	1	57
Negative	4	298	302
Total	60	299	359

Positive agreement rate: 93.33%（95% CI:84.07%~97.38%）
Negative agreement rate: 99.67%（95% CI:98.13%~99.94%）
The total agreement rate: 98.61%（95% CI:96.78%~99.40%）

K2

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	60	0	60
Negative	0	301	301
Total	61	301	362

Positive agreement rate: 100%（95% CI:94.08%~100%）
Negative agreement rate: 100%（95% CI:98.74%~100.00%）
The total agreement rate: 100%（95% CI:98.95%~100%）

KET

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	117	4	121
Negative	4	359	363
Total	121	363	484

Positive agreement rate: 96.69%（95% CI:91.81%~98.71%）
Negative agreement rate: 98.90%（95% CI:97.20%~99.57%）
The total agreement rate: 98.35%（95% CI:96.77%~99.16%）

MDMA

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	91	3	94
Negative	3	307	310
Total	94	310	404

Positive agreement rate: 96.81%（95%CI: 91.03%-98.91%）
Negative agreement rate: 99.04%（95%CI: 97.22%-99.67%）
The total agreement rate: 98.53%（95%CI: 96.82%-99.32%）

MET/mAMP

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	41	0	41
Negative	0	74	74
Total	41	74	115

Positive agreement rate: 100.00%（95% CI:91.40%~100.00%）
Negative agreement rate: 100.00%（95% CI:95.14%~100.00%）
The total agreement rate: 100%（95% CI:96.84%~100.00%）

OPI

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	43	2	45
Negative	0	113	113
Total	43	115	158

Positive agreement rate: 100.00%（95% CI:91.78%~100.00%）
Negative agreement rate: 98.26%（95% CI:93.86%~99.79%）
The total agreement rate: 98.73%（95% CI:95.50%~99.85%）

OXY

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	20	2	22
Negative	1	50	51
Total	21	52	73

Positive agreement rate: 95.24%（95% CI:76.18%~99.88%）
Negative agreement rate: 96.15%（95% CI:86.79%~99.53%）
The total agreement rate: 95.89%（95% CI:88.46%~99.14%）

PCP

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	25	2	27
Negative	2	120	122
Total	27	122	149

Positive agreement rate: 92.59%（95% CI:75.71%~99.09%）
Negative agreement rate: 98.36%（95% CI:94.20%~99.80%）
The total agreement rate: 97.32%（95% CI:93.27%~99.26%）

TRA

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	54	3	57
Negative	3	159	162
Total	57	162	219

Positive agreement rate: 94.74%（95% CI:85.63%~98.19%）
Negative agreement rate: 98.15%（95% CI:94.70%~99.37%）
The total agreement rate: 97.26%（95% CI:94.15%~98.74%）

MTD

Multi-Drug Hair Test	LC-MS		
	Positive	Negative	Total
Positive	73	0	73
Negative	2	329	331
Total	75	329	404

Positive agreement rate: 97.33%（95% CI:90.79%~99.27%）
Negative agreement rate: 100.00%（95% CI:98.85%~100.00%）
The total agreement rate: 96.95%（95% CI:98.21%~99.86%）

2. Analytical Sensitivity

To determine the analytical sensitivity of the test, the standard control confirmed by LC-MS/MS are formulated into different concentration levels and treated based on the hair specimen processing procedure, then tested by the Multi-Drug Hair Test. Each specimen with different concentration level is tested repeatedly for 20 times to obtain the following results:

Concentration	AMP		BAR		BUP		BZO	
	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive
-100% cutoff	20	0	20	0	20	0	20	0
-75% cutoff	20	0	20	0	20	0	20	0
-50% cutoff	20	0	20	0	20	0	20	0
-25% cutoff	12	8	15	5	20	0	18	2
cutoff	10	10	12	8	9	11	15	5
+25% cutoff	10	10	0	20	6	14	10	10
+50% cutoff	1	19	0	20	0	20	0	20
+75% cutoff	0	20	0	20	0	20	0	20
+100% cutoff	0	20	0	20	0	20	0	20

Concentration	COC		K2		KET		MDMA	
	Negative	Positive	Negative	Positive	Negative	Negative	Negative	Positive
-100% cutoff	20	0	20	0	20	0	20	0
-75% cutoff	20	0	20	0	20	0	20	0
-50% cutoff	20	0	20	0	20	0	19	1
-25% cutoff	12	8	10	10	11	9	18	2
cutoff	11	9	9	11	10	10	10	10
+25% cutoff	0	20	0	20	0	20	3	17
+50% cutoff	0	20	0	20	0	20	2	18
+75% cutoff	0	20	0	20	0	20	0	20
+100% cutoff	0	20	0	20	0	20	0	20

Concentration	MET /mAMP		OPI		OXY		PCP		TRA	
	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive
-100% cutoff	20	0	20	0	20	0	20	0	20	0
-75% cutoff	20	0	20	0	20	0	20	0	20	0
-50% cutoff	20	0	20	0	20	0	20	0	20	0
-25% cutoff	12	8	13	7	10	10	10	10	16	4
cutoff	11	9	10	10	9	11	8	12	12	8
+25% cutoff	0	20	0	20	0	20	0	20	0	20
+50% cutoff	0	20	0	20	0	20	0	20	0	20
+75% cutoff	0	20	0	20	0	20	0	20	0	20
+100% cutoff	0	20	0	20	0	20	0	20	0	20

Concentration	MTD		6-MAM		FTY		/	
	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive
-100% cutoff	20	0	20	0	20	0	/	/
-75% cutoff	20	0	20	0	20	0	/	/
-50% cutoff	20	0	20	0	20	0	/	/
-25% cutoff	10	10	10	10	10	10	/	/
cutoff	9	11	12	8	9	11	/	/
+25% cutoff	0	20	4	16	2	18	/	/

+50% cutoff	0	20	0	20	0	20	/	/
+75% cutoff	0	20	0	20	0	20	/	/
+100% cutoff	0	20	0	20	0	20	/	/

3. Cross-Reactivity

The following structurally related compounds produced preliminary results with the test when tested at levels equal to or greater than the concentrations listed below.

6-MAM	Concentration
6-Acetylmorphine	200 pg/mg
Heroin (Diamorphine)	540 pg/mg
Morphine	＞400,000 pg/mg
Codeine	＞4,000,000 pg/mg
Ethylmorphine	＞4,000,000 pg/mg
Pholcodine	＞4,000,000 pg/mg
Nalorphine	＞400,000pg/mg
Morphine-3-glucuronide	＞400,000 pg/mg
Morphine-6-glucuronide	＞400,000 pg/mg
Buprenorphine	＞4,000,000 pg/mg
Dihydrocodeine	＞4,000,000 pg/mg
Oxycodone	＞4,000,000 pg/mg
Oxymorphone	200,000 pg/mg
Naltrexone	2,170,000 pg/mg
Naloxone	136,000 pg/mg
Hydrocodone	＞4 00,000 pg/mg
Hydromorphone	108,000 pg/mg
Thebaine	＞400,000 pg/mg
Normorphine	＞400,000 pg/mg
Levorphanol	＞4,000,000 pg/mg
Norcodeine	＞4,000,000 pg/mg
Codeine-6-glucuronide	＞400,000 pg/mg

AMP	Concentration
D-Amphetamine	500 pg/mg
(+/-) 3,4-Methylenedioxyamphetamine (MDA)	1,300 pg/mg
3,4-Methylenedioxymethamphetamine) (MDMA)	160,000 pg/mg

BAR	Concentration
Secobarbital	200 pg/mg
Amobarbital	1,000 pg/mg
Aprobarbital	5,000 pg/mg
Sec-butylbarbital	2,500 pg/mg

BUP	Concentration
Buprenorphine	40 pg/mg
Norbuprenorphine	40 pg/mg
Buprenorphine-3-beta-D-glucuronide	40 pg/mg
Oxycodone	433,000 pg/mg
Morphine	433,000 pg/mg
Hydromorphone	433,000 pg/mg

BZO	Concentration
Oxazepam	100 pg/mg
Alprazolam	40 pg/mg
α-Hydroxyalprazolam	80 pg/mg
Bromazepam	40 pg/mg
Chlordiazepoxide	1,300 pg/mg
Clobazam	2.5 pg/mg
Clonazepam	80 pg/mg
Clorazepate	30 pg/mg
Delorazepam	2,600 pg/mg
Desalkylflurazepam	80 pg/mg
Estazolam	20 pg/mg
Flunitrazepam	10 pg/mg
(±) Lorazepam	1,040 pg/mg
Midazolam	80 pg/mg
Nitrazepam	20 pg/mg
Norchlordiazepoxide	325 pg/mg
Nordiazepam	4 pg/mg
Temazepam	30 pg/mg
Triazolam	20 pg/mg
Nimetazepam	10 pg/mg
7-aminoclonazepam	20,800 pg/mg

COC	Concentration
Cocaine	200 pg/mg
Benzoylecgonine	500 pg/mg
Ecgonine methyl ester	26,000 pg/mg
Ecgonine	33,000 pg/mg

FTY	Concentration
Fentanyl	40 pg/mg
Sufentanil	＞300 pg/mg
Alfentanyl	1800 pg/mg
Norfentanyl	＞4,000,000 pg/mg
Carfentanyl	＞40,000 pg/mg
Buspirone	＞400,000 pg/mg

K2	Concentration
JWH-018 5-Pentanoic acid metabolite	200 pg/mg
JWH-073 4-Butanoic acid metabolite	200 pg/mg
JWH-250 4-Hydroxypentyl metabolite	600,000 pg/mg
JWH-210 5-Hydroxypentyl metabolite	6,000 pg/mg
JWH-073 4-Hydroxybutyl metabolite	150 pg/mg
JWH-019 5-Hydroxyhexyl metabolite	300 pg/mg
JWH-018 N-(4-hydroxypentyl) metabolite	500 pg/mg
MAM2201	10,000 pg/mg
JWH-122 5-Hydroxypentyl metabolite	600 pg/mg
APINACA (AKB-48) 5-Hydroxypentyl metabolite	400,000 pg/mg
JWH-019 6-Hydroxyhexyl metabolite	600 pg/mg

KET	Concentration
Ketamine	1,000 pg/mg
2-Fluorodeschloroketamine	1,700 pg/mg

MDMA	Concentration
(+/-) 3,4-Methylenedioxymethamphetamine (MDMA)	500 pg/mg
(+/-) 3,4-Methylenedioxyamphetamine (MDA)	8,000 pg/mg
(+/-) 3,4-Methylenedioxyethylamphetamine (MDEA)	800 pg/mg
(+/-) -Amphetamine	2,083,000 pg/mg
(+/-)-Methamphetamine	4,000 pg/mg

MET/mAMP	Concentration
D-Methamphetamine	200 pg/mg
Amphetamine	3,000 pg/mg
(+/-) 3,4-Methylenedioxyamphetamine (MDA)	1,600 pg/mg
(+/-) 3,4-Methylenedioxyethylamphetamine (MDEA)	1,600 pg/mg
(+/-) 3,4-Methylenedioxymethamphetamine (MDMA)	2,600 pg/mg

OPI	Concentration
Morphine	200 pg/mg
6- acetyl morphine	300 pg/mg
Codeine	160 pg/mg
Dihydromorphinone	3,000 pg/mg
Ethyl morphine	160 pg/mg
Oxycodone	3,000 pg/mg
Thebaine	3,000 pg/mg

OXY	Concentration
Oxycodone	200 pg/mg
6-acetyl morphine	>3,000 pg/mg
Buprenorphine	>3,000 pg/mg
Dihydrocodeine chloride	6,000 pg/mg
Morphine	>3,000 pg/mg
Hydromorphone	3,000 pg/mg

PCP	Concentration
Phencyclidine	300 pg/mg
Tetrahydrozoline	4,000 pg/mg

TRA	Concentration
Tramadol	200 pg/mg
O-desmethyl-tramadol	17,300 pg/mg
N-desmethyl-tramadol	430 pg/mg

MTD	Concentration
Methadone	200 pg/mg
Disopyramide	150,000 pg/mg
(+)-Chlorpheniramine	150,000 pg/mg
Doxylamine	1,500,000 pg/mg
EDDP	>3,000,000 pg/mg
EMDP	>3,000,000 pg/mg
Morphine	>2，700，000 pg/mg
Phencyclidine	>30,000 pg/mg
(±)2-Ethyl-1,5-dimethyl-3,3-diphenylpyrrolinium	>1,600,000 pg/mg
D-Methamphetamine	>1，300，000 pg/mg
d,l-Methylenedioxymethamphetamine	>300,000 pg/mg

4. Interference

(1) Hair color doesn't affect the test results.

(2) Normal hair treatment such as applying shampoo, conditioner, gel and spray will not affect the test results.

(3) Potential interfering substance was diluted by hair specimen processing solution to 1500 ng/mg (The substances per milligram of hair specimen is 1500 ng), then tested with Multi-Drug Hair Test. The test results are not affected by the following substances at the concentration of 1500 ng/mg:

Acyclovir	Enalapril	Paliperidone
Alipiprazole	Epinephrine	Papaverine
Alprazolam	Esomeprazole Magnesium	Penfluridol
Amiodarone	Gabapentin	Penicillin V
Amlodipine	Glibenclamide	Perphenazine
Amoxicillin	Gliclazide	Pioglitazone
Ampicillin	Glipizide	Piracetam
Aspirin	Glucose	Pravastatin
Atorvastatin	Hydrochlorothiazide	Prednisone
Buspirone	Isosorbide Dinitrate	Promethazine
Captopril	Lamotrigine	Propranolol (Except PCP)
Carbamazepine	Lansoprazole	Propylthiouracil Tablet
Cefaclor	Levonorgestrel	Quetiapine
Cefalexin	Levothyroxine	Rifampicin
Cefradine	Lidocaine	Sildenafil
Chondroitin	Lisinopril	Simvastatin
Ciprofloxacin	Lithium Carbonate	Sodium Valproate
Clarithromycin	Loperamide	Spirolactone
Clopidogrel	Loratadine	Spironolactone
Cortisone	Metoprolol	Tetracycline Tablet

Cyclobenzaprine	Mifepristone tablets	Tizanidine
Dextromethorphan	Mirtazapine	Trazodone
Diclofenac	Montelukast	Triamterene
Dicyclomine	Mosapride	Ursodeoxycholic Acid
Digoxin	Nifedipine	Vitamin B1
Diphenhydramine (Except COC)	Nimodipine	Vitamin B2
Diphenoxylate Hydrochloride	Nitroglycerin	Vitamin C (Ascorbic Acid)
Domperidone	Oxymetazoline	

BIBLIOGRAPHY

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2. Cone E J. Mechanisms of drug incorporation into hair.[J]. Therapeutic Drug Monitoring, 1，。996, 18(4):438-43.
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INDEX OF SYMBOLS


Keep away from sunlight

Store between 4°C - 30°C (39°F - 86°F)


Keep dry


Do not re-use

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