

## Rapid Response®

### Drug Screening Test Strip (Urine)

Product Insert

For laboratory *in vitro* diagnostic use only.

#### Intended Use

The Rapid Response® Drug Screening Test Strip is rapid chromatographic immunoassays for the qualitative and simultaneous detection of one of the following drugs in human urine. The designed cutoff concentrations and direct calibrator for these drugs are as follows:

Parameter	Calibrator	Cut-off (ng/mL)
6-MAM	6-MonoacetylMorphine	10
7-ACL	7-Aminoclonazepam	300/200
ACE	Acetaminophen	5000
ALP	Alprazolam	100
AMP	d-Amphetamine	1000/500/300
APVP	α-Pyrrolidinovalerophenone	500
BAR	Secobarbital	300/200/100
BUP	BUP-3-D-Glucuronide	10/5
BZO	Oxazepam	500/300/200/100
CAF	Caffeine	8000
CAT	(+)-Norpseudoephedrine HCl (Cathine)	100
CFYL	Carfentanyl	500
CLO	Clonazepam	150
COC	Benzoyllecgonine	300/200/150/100
COT	(-)-Cotinine	1000/600/300/200/100
DIA	Diazepam	100
EDDP	2-Ethylidine-1,5-dimethyl-3,3-diphenylpyrrolidine	300/100
ETG	Ethyl glucuronide	1000/500/300
FYL	Fentanyl	20/10
GAB	Gabapentin	2000
HMO	Hydromorphone	1000/500/250
K2	JWH-018-5-Pentanoic acid	50/30/25
K3	AB- PINACA	25
K4	UR-144 5-Pentanoic acid metabolite	25
KET	Ketamine	1000/500/300
KRA	7-hydroxymitragynine	500
LSD	9,10-Didehydro-N,N-diethyl-6-methylergoline-8beta-carboxamide	50/20
MCAT	Methcathinone	500
MDA	3,4-Methylenedioxyamphetamine	500
MDMA	3,4-Methylenedioxy-methamphetamine	1000/500/300
MDPHP	3',4'-Methylenedioxy-α-pyrrolidinohexiophenone	500

MDPV	Methylenedioxypropylvalerone	1000/500
MEP	Mephedrone	500
MES	Mescaline	500
MET	d-Methamphetamine	1000/500/300
MOP	Morphine	300/200/100
MPD	Methylphenidate	300/150
MQL	Methaqualone	300
MTD	Methadone	300/200
NFYL	Norfentanyl	20
OPI	Morphine	2000/1000
OXY	Oxycodone	300/100
PCP	Phencyclidine	25
PGB	Pregabalin	1000/500
PPX	D-Propoxyphene	300
SOMA	Carisoprodol	1000
TAP	Tapentadol	1000
TCA	Nortriptyline	1000/300
THC	11-nor-Δ9-THC-9-COOH	500/300/200/150/50/25

The drug test strip is used to obtain visual qualitative result and is intended for health care professionals use to assist in the determination of drug compliance. It is not intended for over-the-counter sale to non-professionals.

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 judgement should be applied to any drug of abuse test result, particularly when preliminary positive results are indicated.

#### Warning

This test strip is not designed to test drugs before they are consumed. When used in this way, this test strip may not detect certain drugs, including fentanyl, even if present.

#### Mise En Garde:

Cette Bandelette d'essai n'est pas destinée à analyser les drogues avant leur consommation. Si elle est utilisée à cette fin, elle pourrait ne pas détecter certaines drogues, comme le fentanyl, même si elles sont présentes.

#### Principle

The Rapid Response® Drug Screening Test Strip 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 which are pre-coated with drug-protein conjugates on the test line(s). 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 coloured 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 line

region. The coloured 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 line 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 coloured antibody (drug-protein conjugate)-colloidal gold conjugate to the drug-protein conjugate zone on the test line region. Therefore, absence of the colour line on the test region indicates a positive result.

A control line 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.

GHB-DH catalyses the reaction of GHB and NAD to produce NADH, and adiphorase couple tetrazolym dye reaction results in the production of a purple dye complex. The reagents were stabilized and used to produce the dip test to screen for low levels of GHB in urine samples.

#### Precautions

- For laboratory *in vitro* diagnostic use only.
- The pouch containing the test strip should be sealed. Discard the test strip 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.

#### Materials

##### Materials provided

- Test strip
- Product insert

##### Materials required but not provided

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

#### Storage and Stability

The pouched Rapid Response® Drug Screening Test Strip 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.

#### Collection and Storage of Specimens

**Urine Collection:** The Rapid Response® Drug Screening Test Strip 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.

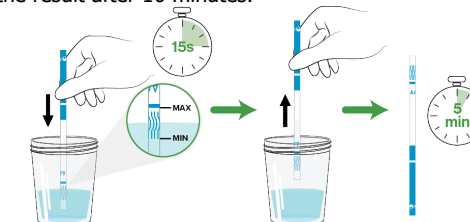
**Urine Storage:** It is recommended the collected fresh urine to be tested immediately. Fresh urine maybe stored at room temperature (25°C; 77°F) for up to 4 hours or to be refrigerated (2-8°C; 36-86°F) for up to 48 hours prior to performing the test. For prolonged storage, specimens may be frozen and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

#### Test Procedure

**IMPORTANT Test strip, 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 from its sealed pouch, or remove one strip from the canister, and use it as soon as possible. For best results, the assay should be performed within one hour.
- Hold the strip by the end, where the product name is printed. To avoid contamination, do not touch the strip membrane.
- Holding the strip vertically, dip the test strip in the urine specimen for at least 10-15 seconds. Do not immerse past the maximum line (MAX) on the test strip.
- After the test has finished running, remove the strip from the specimen and place it on a non-absorbent flat surface. Start the timer and wait for the coloured line(s) to appear. The result should be read at 5 minutes. Do not interpret the result after 10 minutes.



##### For GHB:

- For dip strip GHB drug test, the result(s) should be read at 10 minutes and the result after 15 minutes is invalid.

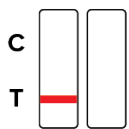
## Results Interpretation



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



**NEGATIVE: Two coloured lines appear on the membrane.** One line appears in the control region (C) and another line appears in the test region (T).

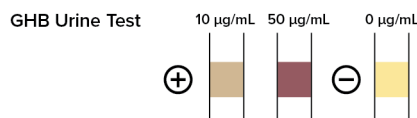


**INVALID: Control line fails to appear.** Results from any test which has not produced a control line at the specified read time must be discarded. Please review the procedure and repeat with a new test. If the problem persists, discontinue using the kit immediately and contact your local distributor.

### NOTE:

- The intensity of colour in the test region (T) may vary depending on the concentration of analytes present in the specimen. Therefore, any shade of colour 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.
- Insufficient specimen volume, incorrect operating procedure or expired tests are the most likely reasons for control line failure.

### The Result Of GHB:



## 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 daily. 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® Drug Screening Test Strip 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 strip should be discarded. The presence of this control line in the control region serves as 1) verification that sufficient volume is added, 2) that proper flow is obtained.

## Limitations

- 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 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

### A. Accuracy

The accuracy of the Rapid Response® Drug Screening Test Strip was established by running urine samples against GC/MS.

Specimen	6-MAM10	7-ACL300	7-ACL200	ACE5000
Positive	96.80%	97.80%	98.30%	96.10%
Negative	100.00%	100.00%	99.90%	100.00%
Total	98.20%	99.00%	99.10%	98.10%
Specimen	ALP100	AMP1000	AMP500	AMP300
Positive	97.40%	95.80%	95.90%	96.10%
Negative	98.20%	100.00%	100.00%	100.00%
Total	97.90%	98.10%	98.10%	98.10%
Specimen	APVP500	BAR300	BAR200	BAR100
Positive	95.80%	97.80%	96.60%	98.10%
Negative	100.00%	98.10%	97.00%	97.90%
Total	98.10%	98.00%	96.80%	98.00%
Specimen	BUP10	BUP5	BZO500	BZO300
Positive	100.00%	100.00%	98.00%	95.30%
Negative	100.00%	100.00%	100.00%	92.90%
Total	100.00%	100.00%	99.00%	93.90%
Specimen	BZO200	BZO100	CAF8000	CAT100
Positive	97.40%	95.90%	95.70%	100.00%
Negative	98.20%	98.00%	98.10%	100.00%
Total	97.90%	97.00%	97.00%	100.00%

Specimen	CFYL500	CLO150	COC300	COC200
Positive	97.10%	95.90%	98.20%	95.70%
Negative	99.10%	100.00%	98.10%	98.10%
Total	98.60%	98.10%	98.20%	97.00%
Specimen	COC150	COC100	COT1000	COT600
Positive	96.00%	98.20%	100.00%	96.50%
Negative	94.00%	98.10%	100.00%	98.00%
Total	95.00%	98.20%	100.00%	97.20%
Specimen	COT300	COT200	COT100	DIA100
Positive	97.90%	97.70%	100.00%	98.30%
Negative	98.10%	97.90%	100.00%	97.10%
Total	98.00%	98.00%	100.00%	97.70%
Specimen	EDDP300	EDDP100	ETG1000	ETG500
Positive	98.60%	95.80%	99.80%	79.70%
Negative	100.00%	100.00%	99.20%	84.70%
Total	99.10%	98.10%	99.80%	82.20%
Specimen	ETG300	FYL20	FYL10	GAB2000
Positive	100.00%	96.80%	94.40%	97.70%
Negative	100.00%	100.00%	100.00%	98.40%
Total	100.00%	98.30%	97.20%	98.10%
Specimen	HMO1000	HMO500	HMO250	K2 50
Positive	100.00%	95.90%	95.90%	98.90%
Negative	100.00%	100.00%	100.00%	100.00%
Total	100.00%	98.10%	98.00%	99.00%
Specimen	K2 30	K2 25	K3 25	K4 25
Positive	98.80%	97.50%	100.00%	98.80%
Negative	97.10%	98.40%	100.00%	99.20%
Total	98.30%	98.00%	100.00%	99.90%
Specimen	KET1000	KET500	KET300	KRA500
Positive	98.00%	100.00%	98.30%	99.10%
Negative	98.60%	100.00%	98.40%	98.60%
Total	98.30%	100.00%	98.30%	99.20%
Specimen	LSD50/ 20	MCAT500	MDA500	MDMA1000
Positive	100.00%	97.60%	96.80%	98.50%
Negative	100.00%	99.00%	98.30%	98.20%
Total	100.00%	98.00%	97.50%	98.30%
Specimen	MDMA500	MDMA300	MDPHP500	MDPV1000
Positive	100.00%	97.40%	98.28%	96.10%
Negative	100.00%	100.00%	96.67%	100.00%
Total	100.00%	98.40%	97.46%	98.10%
Specimen	MDPV500	MEP500	MES500	MET1000
Positive	100.00%	100.00%	100.00%	96.80%
Negative	100.00%	100.00%	100.00%	100.00%
Total	100.00%	100.00%	100.00%	98.30%
Specimen	MET500	MET300	MOP300	MOP200
Positive	96.90%	96.80%	96.80%	96.10%
Negative	100.00%	100.00%	97.90%	100.00%
Total	98.30%	98.40%	97.30%	98.10%
Specimen	MOP100	MPD300	MPD150	MQL300

Specimen	MTD300	MTD200	NFYL20	OPI2000
Positive	96.10%	97.30%	98.90%	97.60%
Negative	100.00%	100.00%	98.10%	98.40%
Total	98.10%	98.70%	98.50%	98.10%
Specimen	OPI1000	OXY300	OXY100	PCP25
Positive	96.50%	98.00%	96.10%	97.80%
Negative	96.00%	97.00%	100.00%	100.00%
Total	96.30%	97.00%	98.10%	98.90%
Specimen	PGB1000	PGB500	PPX300	SOMA1000
Positive	97.20%	97.20%	97.80%	98.60%
Negative	98.20%	98.30%	100.00%	98.70%
Total	97.80%	97.80%	99.00%	98.70%
Specimen	TAP1000	TCA1000	TCA300	THC500
Positive	97.30%	92.10%	100.00%	100.00%
Negative	97.50%	100.00%	100.00%	100.00%
Total	97.40%	96.80%	100.00%	100.00%
Specimen	THC300	THC200	THC150	THC50
Positive	96.60%	96.10%	98.40%	96.80%
Negative	100.00%	100.00%	98.30%	98.30%
Total	98.40%	98.10%	98.40%	97.50%
Specimen	THC25	TLD300	TRA300	TRA100
Positive	96.80%	99.10%	96.60%	98.40%
Negative	98.30%	98.10%	98.20%	100.00%
Total	97.50%	98.60%	97.40%	99.10%
Specimen	TPM350	TZD200	XYL1000	ZAL100
Positive	98.50%	99.90%	97.44%	100.00%
Negative	98.20%	99.90%	95.12%	100.00%
Total	98.30%	99.90%	96.25%	100.00%
Specimen	ZOL50	ZOL25	ZOP50	
Positive	96.80%	96.80%	96.90%	
Negative	97.90%	100.00%	100.00%	
Total	97.30%	98.30%	98.30%	

\*NOTE: BUP was based on LC/MS data instead of GC/MS

### B. Sensitivity

The sensitivity of the Rapid Response® Drug Screening Test Strip was determined by testing GC/MS confirmed controls at negative, -50% cut-off, -25% cut-off, cut-off, +25% cut-off, +50% cut-off and 3 times cut-off concentrations. The results are summarized below:

Drug Conc.	n	6-MAM10	7-ACL300	7-ACL200	ACE5000
(Cut-off)		-	+	-	+
Negative	50	50	0	50	0
50% Cutoff	50	50	0	50	0
75% Cutoff	50	50	0	50	0
Cutoff	50	25	25	18	32
125% Cutoff	50	0	50	0	50



Oxazepam	>10,000
Alprazolam	>10,000
Bromazepam	>10,000
Chlordiazepoxide	>10,000
Clobazam	>10,000
Clonazepam	10,000
Clorazepate dipotassium	>10,000
Desalkylflurazepam	>10,000
Diazepam	>10,000
Estazolam	>10,000
Flunitrazepam	>50,000
(±) Lorazepam	10,000
Midazolam	>100,000
Nitrazepam	>10,000
Norchlordiazepoxide	>100,000
Secobarbital	>100,000
Temazepam	>10,000
<b>7-ACL 200-related compounds</b>	
7-amine-clonazepam	200
Oxazepam	>10,000
Alprazolam	>10,000
Bromazepam	>10,000
Chlordiazepoxide	>10,000
Clobazam	>10,000
Clonazepam	6,000
Clorazepate dipotassium	>10,000
Desalkylflurazepam	>10,000
Diazepam	>10,000
Estazolam	>10,000
Flunitrazepam	>50,000
(±) Lorazepam	6,000
Midazolam	>100,000
Nitrazepam	>10,000
Norchlordiazepoxide	>100,000
Nordiazepam	>100,000
<b>ACE 5000-related compounds</b>	
Acetaminophen	5,000
<b>ALP 100-related compounds</b>	
Alprazolam	100
Oxazepam	450
Bromazepam	800
Chlordiazepoxide	1,000
Clobazam	50
Clonazepam	5,000
Clorazepate dipotassium	100
Desalkylflurazepam	1,000
Diazepam	10
Estazolam	50
Flunitrazepam	>50,000
Flurazepam	250
(±) Lorazepam	10,000
Midazolam	800
Nitrazepam	1,000
Nordiazepam	100
Temazepam	25
<b>AMP 1000-related compounds</b>	
d-Amphetamine	1,000
l-Amphetamine	>100,000
d-methamphetamine	>100,000
l-methamphetamine	>100,000

3,4-Methylenedioxyamphetamine	1,250
3,4-Methylenedioxy-methamphetamine	>100,000
3,4-Methylenedioxyethylamphetamine	>100,000
Paramethoxyamphetamine	625
Phentermine	1,250
Tyramine	>100,000
<b>AMP 500-related compounds</b>	
d-Amphetamine	500
l-Amphetamine	50,000
3,4-Methylenedioxyamphetamine	625
Phentermine	1,250
Paramethoxyamphetamine	625
Tyramine	>100,000
<b>AMP 300-related compounds</b>	
d-Amphetamine	300
l-Amphetamine	50,000
Mephentermine hemisulfate salt	>100,000
3,4-Methylenedioxyamphetamine (MDA)	625
Phentermine	625
Paramethoxyamphetamine (PMA)	625
Paramethoxymethamphetamine (PMMA)	>100,000
Tyramine	>100,000
<b>APVP 500-related compounds</b>	
α-PVP	500
MDPV	40
PVP	>100,000
<b>BAR 3000-related compounds</b>	
Secobarbital	3,000
Allobarbital	10,000
Alphenal	500
Amobarbital	10,000
Aprobarbital	1,000
Butabarbital	1,000
Butalbital	100,000
Cyclopentobarbital	10,000
Pentobarbital	1,000
Phenobarbital	250
<b>BAR 300-related compounds</b>	
Secobarbital	300
Allobarbital	1,250
Alphenal	625
Amobarbital	625
Aprobarbital	188
Butabarbital	94
Butalbital	2,500
Butethal	200
Cyclopentobarbital	400
Pentobarbital	1,000
Phenobarbital	300
<b>BAR 200-related compounds</b>	
Secobarbital	200
Allobarbital	820
Alphenal	500
Amobarbital	500
Aprobarbital	130
Butabarbital	70
Butalbital	1,800
Butethal	150
Cyclopentobarbital	300
Pentobarbital	730

Phenobarbital	200
<b>BAR 100-related compounds</b>	
Secobarbital	100
Amobarbital	350
Alphenol	25
Aprobarbital	100
Butabarbital	30
Butathal	150
Butalbital	2,000
Cyclopentobarbital	150
Pentobarbital	60
Phenobarbital	100
<b>BUP 10-related compounds</b>	
Buprenorphine	10
Buprenorphine-3-β-D-Glucuronide	10
Norbuprenorphine	50
Norbuprenorphine-3-β-D-Glucuronide	100
<b>BUP 5-related compounds</b>	
Buprenorphine	5
Buprenorphine-3-β-D-Glucuronide	5
Norbuprenorphine	25
Norbuprenorphine-3-β-D-Glucuronide	50
<b>BZO 500-related compounds</b>	
Oxazepam	500
<b>BZO 300-related compounds</b>	
Oxazepam	300
Alprazolam	125
Bromazepam	625
Chlordiazepoxide	2,500
Clobazam	63
Clonazepam	2,500
Clorazepate	3,330
Desalkylflurazepam	250
Diazepam	250
Estazolam	5,000
Fentanyl	>100,000
Flunitrazepam	375
Flurazepam	>100,000
Lorazepam	1,250
Lormetazepam	1,250
Medazepam	>100,000
Midazolam	>100,000
Nitrazepam	25,000
Norchlordiazepoxide	250
Nordiazepam	500
Prazepam	>100,000
Temazepam	63
Triazolam	5,000
<b>BZO 200-related compounds</b>	
Oxazepam	200
Alprazolam	83
Bromazepam	417
Chlordiazepoxide	1,667
Clobazam	42
Clonazepam	1,667
Clorazepate	2,220
Desalkylflurazepam	167
Diazepam	167
Estazolam	3,333
Fentanyl	>100,000

Flunitrazepam	250
Flurazepam	>100,000
Lorazepam	833
Lormetazepam	833
Medazepam	>100,000
Midazolam	>100,000
Nitrazepam	16,667
Norchlordiazepoxide	167
Nordiazepam	333
Prazepam	>100,000
Temazepam	42
Triazolam	3,333
<b>BZO 100-related compounds</b>	
Oxazepam	100
Alprazolam	42
Bromazepam	208
Chlordiazepoxide	833
Clobazam	21
Clonazepam	833
Clorazepate	1,110
Desalkylflurazepam	83
Diazepam	83
Estazolam	1,667
Fentanyl	>100,000
Flunitrazepam	125
Flurazepam	>100,000
Lorazepam	417
Lormetazepam	417
Medazepam	>100,000
Midazolam	>100,000
Nitrazepam	8,333
Norchlordiazepoxide	83
Nordiazepam	167
Prazepam	>100,000
Temazepam	21
Triazolam	1,667
<b>CAF 8000-related compounds</b>	
Caffeine	8,000
Theophylline	100,000
<b>CAT 100-related compounds</b>	
(+)-Norpseudoephedrine HCl (Cathine)	100
(+)-3,4-Methylenedioxyamphetamine (MDA)	80
d/l-Amphetamine	80
p-Hydroxyamphetamine	80
Tryptamine	10,000
Methoxyphenamine	10,000
<b>CFYL 500-related compounds</b>	
Carfentanyl	500
Fentanyl	100
<b>CLO 150-related compounds</b>	
Clonazepam	150
Alprazolam	250
Bromazepam	625
Chlordiazepoxide	2,500
Clobazam	63
Oxazepam	30
Clorazepate	3,330
Delorazepam	2,500
Desalkylflurazepam	250
Diazepam	250

Estazolam	5,000
Flunitrazepam	375
Lorazepam	1,250
Lormetazepam	1,250
Midazolam	100,000
Nitrazepam	25,000
Norchlordiazepoxide	250
Nordiazepam	500
Sulindac	100,000
Temazepam	125
Triazolam	5,000
<b>COC 300-related compounds</b>	
Benzoyllecgonine	300
Cocaine	1,000
Ecgonine	100,000
Ecgonine Methyl Ester	>100,000
<b>COC 200-related compounds</b>	
Benzoyllecgonine	200
Cocaine	125
Ecgonine	5,000
Ecgonine Methyl Ester	>100,000
<b>COC 150-related compounds</b>	
Benzoyllecgonine	150
Cocaine	125
Ecgonine	10,000
Ecgonine Methyl Ester	>10000
<b>COC 100-related compounds</b>	
Benzoyllecgonine	100
<b>COT 1000-related compounds</b>	
(-)-Cotinine	1,000
(-)-Nicotine	>100,000
<b>COT 600-related compounds</b>	
(-)-Cotinine	600
<b>COT 300-related compounds</b>	
(-)-Cotinine	300
(-)-Nicotine	9,375
<b>COT 200 related compounds</b>	
(-)-Cotinine	200
(-)-Nicotine	6,250
<b>COT 100 related compounds</b>	
(-)-Cotinine	100
Buprenorphine	100,000
<b>DIA 100-related compounds</b>	
Diazepam	100
Oxazepam	450
Bromazepam	1,000
Chlordiazepoxide	1,500
Clobazam	150
Clonazepam	6,000
Clorazepate dipotassium	300
Desalkylflurazepam	2,000
Alprazolam	400
Estazolam	200
Flunitrazepam	>50,000
Flurazepam	750
(±) Lorazepam	10,000
Midazolam	1,000
Nitrazepam	1,500
Nordiazepam	300
Temazepam	75

<b>EDDP 300-related compounds</b>	
EDDP	300
Meperidine	>100,000
Methadone	>100,000
Norfentanyl	>100,000
Phencyclidine	>100,000
Promazine	80,000
Promethazine	75,000
Prothipendyl	80,000
Prozine	37,500
<b>EDDP 100-related compounds</b>	
EDDP	100
Meperidine	>100,000
Methadone	>100,000
Norfentanyl	>100,000
Phencyclidine	>100,000
Promazine	50,000
Promethazine	25,000
Prothipendyl	50,000
Prozine	12,500
<b>ETG 1000-related compounds</b>	
Ethyl Glucuronide	1,000
<b>ETG 500-related compounds</b>	
Ethyl Glucuronide	500
Ethanol	>100,000
D-Glucuronic Acid	>100,000
Morphine-3-b-D-glucuronide	>100,000
<b>ETG 300-related compounds</b>	
Ethyl Glucuronide	300
<b>FYL 20-related compounds</b>	
Fentanyl and Fentanyl metabolites	20
Fentanyl	200
Norfentanyl	>10,000
<b>FYL 10-related compounds</b>	
Fentanyl and Fentanyl metabolites	10
Fentanyl	100
Norfentanyl	>10,000
<b>GAB 2000-related compounds</b>	
Gabapentin	2,000
Pregbalin	>100,000
<b>HMO 1000-related compounds</b>	
Hydromorphone	1,000
Acetylcodeine	6,000
Buprenorphine	>10,000
Codeine	5,000
Diacetyl Morphin	10,000
Dihydrocodeine	12,000
Ethylmorphine	10,000
Hydrocodone	800
Morphine	8,000
6-Monoacetylmorphine	5,000
Morphine-3-glucuronid	5,000
Nalorphine	50,000
Thebaine	>20,000
Methadone	>100,000
Oxazepam	>100,000
Oxycodone	>100,000
EDDP	>100,000
<b>HMO 500-related compounds</b>	
Hydromorphone	500

Acetylcodeine	4,000
Buprenorphine	>10,000
Codeine	4,000
Diacetyl Morphin	5,000
Dihydrocodeine	6,000
Ethylmorphine	4,500
Hydrocodone	450
Morphine	3,000
6-Monoacetylmorphine	5,000
Morphine-3-glucuronid	3,000
Nalorphine	20,000
Thebaine	>20,000
Methadone	100,000
Oxazepam	>100,000
Oxycodone	100,000
EDDP	>100,000
<b>HMO 250-related compounds</b>	
Hydromorphone	250
Acetylcodeine	4,000
Buprenorphine	>10,000
Codeine	3,000
Diacetyl Morphin	3,000
Dihydrocodeine	4,000
Ethylmorphine	4,000
Hydrocodone	300
6-Monoacetylmorphine	3,000
Morphine-3-glucuronid	2,500
Nalorphine	12,500
Thebaine	>20,000
Methadone	>100,000
Oxazepam	>100,000
Oxycodone	100,000
EDDP	>100,000
Morphine	2,500
<b>K2 50 related compounds</b>	
JWH-018-5-Pentanoic acid	50
JWH-073-4-Butanoic acid	50
<b>K2 30-related compounds</b>	
JWH-018-5-Pentanoic acid	30
JWH-073-4-Butanoic acid	30
<b>K2 25-related compounds</b>	
JWH-018-5-Pentanoic acid	25
JWH-073-4-Butanoic acid	25
JWH-250 5-Hydroxypentyl	>100,000
<b>K3 25-related compounds</b>	
AB- PINACA	25
AB-PINACA 5-Pentanoic	25
AB-PINACA 5-hydroxypentyl	25
AB- FUBINACA	40
AB-PINACA 4-hydroxypentyl	>10,000
UR-144 5-Pentanoic	5,000
UR-144	>10,000
UR-144 5-hydroxypentyl	>10,000
UR-144 4-hydroxypentyl	>10,000
APINACA	>10,000
APINACA 5-hydroxypentyl	>10,000
ADB-PINACA N-(5-hydroxypentyl)	50
ADB-PINACA Pentanoic Acid	25
5-fluoroAB-PINACA N-(4-hydroxypentyl)	50
<b>K4 25-related compounds</b>	

UR-144 5-Pentanoic acid metabolite	25
UR-144 4-hydroxypentyl	50
UR-144 5-hydroxypentyl	50
UR-144	>10,000
XLR-11	>10,000
AB- PINACA	>10,000
AB-PINACA 5-Pentanoic	>10,000
AB-PINACA 5-hydroxypentyl	>10,000
AB- FUBINACA	>10,000
AB-PINACA 4-hydroxypentyl	>10,000
APINACA	>10,000
APINACA 5-hydroxypentyl	>10,000
ADB-PINACA N-(5-hydroxypentyl)	>10,000
ADB-PINACA Pentanoic Acid	>10,000
5-fluoroAB-PINACAN-(4-hydroxypentyl)	>10,000
<b>KET 1000-related compounds</b>	
Ketamine	1,000
Norketamine	1,000
Dextromethorphan	>100,000
Dextrorphan tartrate	>100,000
D-Norpropoxyphene	31,250
EDDP	>100,000
Meperidine	12,500
Mephentermine hemisulfate salt	50,000
Methadone	12,500
D-Methamphetamine	12,500
3,4-Methylenedioxyethylamphetamine	25,000
Nordoxepin hydrochloride	25,000
Phencyclidine	5,000
Promazine	8,000
Promethazine	25,000
<b>KET 500-related compounds</b>	
Ketamine	500
Norketamine	500
Dextromethorphan	>100,000
Dextrorphan tartrate	>100,000
D-Norpropoxyphene	30,000
EDDP	>100,000
Meperidine	10,000
Mephentermine hemisulfate salt	50,000
Methadone	12,500
D-Methamphetamine	12,500
3,4-Methylenedioxyethylamphetamine	25,000
Nordoxepin hydrochloride	25,000
Phencyclidine	4,000
Promazine	6,000
Promethazine	25,000
<b>KET 300-related compounds</b>	
Ketamine	300
Norketamine	300
Dextromethorphan	>100,000
Dextrorphan tartrate	>100,000
D-Norpropoxyphene	25,000
EDDP	>100,000
Meperidine	10,000
Mephentermine hemisulfate salt	50,000
Methadone	10,000
D-Methamphetamine	10,000
3,4-Methylenedioxyethylamphetamine	25,000
Nordoxepin hydrochloride	25,000

Phencyclidine	4,000
Promazine	6,000
Promethazine	25,000
<b>KRA 500-related compounds</b>	
7-hydroxymitragynine	500
Mitragynine	6,000
<b>LSD 50-related compounds</b>	
Lysergic acid diethylamide	50
<b>LSD 20-related compounds</b>	
Lysergic acid diethylamide	20
<b>MCAT 500-related compounds</b>	
Methcathinone	500
Mephedrone	500
3-methylmethcathinone	500
4-methylethcathinone	550
Cathinone	>100,000
MDPV	>10,000
<b>MDA 500-related compounds</b>	
3,4-Methylenedioxyamphetamine (MDA)	500
l-Amphetamine	50,000
d-Amphetamine	500
Phentermine	1,250
Paramethoxyamphetamine (PMA)	625
Tyramine	100,000
<b>MDMA 1000-related compounds</b>	
3,4-Methylenedioxy-methamphetamine	1,000
d-Amphetamine	>100,000
l-Amphetamine	>100,000
d-methamphetamine	>100,000
l-methamphetamine	>100,000
3,4-Methylenedioxyamphetamine	3,000
3,4-Methylenedioxyethylamphetamine	500
Paramethoxyamphetamine	50,000
Paramethoxymethamphetamine	>100,000
<b>MDMA 500-related compounds</b>	
3,4-Methylenedioxy-methamphetamine	500
d-Amphetamine	>100,000
l-Amphetamine	>100,000
d-methamphetamine	>100,000
l-methamphetamine	>100,000
3,4-Methylenedioxyamphetamine	2,500
3,4-Methylenedioxyethylamphetamine	156
Paramethoxyamphetamine	50,000
Paramethoxymethamphetamine	>100,000
<b>MDMA 300 related compounds</b>	
3,4-Methylenedioxy-methamphetamine (MDMA)	300
3,4-Methylenedioxyamphetamine (MDA)	2,000
3,4-Methylenedioxyethylamphetamine	130
Paramethoxyamphetamine(PMA)	30,000
Paramethoxymethamphetamine(PMMA)	6,000
<b>MDPHP 500-related compounds</b>	
MDPHP	500
MDPV	500
α-PVP	10,000
<b>MDPV 1000-related compounds</b>	
MDPV	1,000
<b>MDPV 500-related compounds</b>	
MDPV	500
<b>MEP 500 related compounds</b>	
Mephedrone	500

Methcathinone	500
<b>MES 500 related compounds</b>	
Mescaline	500
<b>MET 1000-related compounds</b>	
d-Methamphetamine	1,000
Chloroquine	25,000
12,500	
l-Methamphetamine	10,000
Mephentermine hemisulfate salt	31,250
3,4-Methylenedioxyethylamphetamine	50,000
3,4-Methylenedioxy-methamphetamine	313
Paramethoxymethamphetamine	625
(-)-Ephedrine	4,000
<b>MET 500-related compounds</b>	
d-Methamphetamine	500
Chloroquine	12,500
Fenfluramine	12,500
l-Methamphetamine	3,125
Mephentermine hemisulfate salt	25,000
MDEA	12,500
MDMA	1,875
PMMA	625
(-)-Ephedrine	2,000
<b>MET 300-related compounds</b>	
d-Methamphetamine	300
Chloroquine	7,500
Fenfluramine	12,500
l-Methamphetamine	10,000
Mephentermine hemisulfate salt	31,250
MDEA	50,000
MDMA	313
PMMA	625
(-)-Ephedrine	2,000
<b>MOP 300-related compounds</b>	
Morphine	300
Acetylcodeine	150
Buprenorphine	>10,000
Codeine	250
Diacetyl Morphin	250
Dihydrocodeine	586
Ethylmorphine	200
Hydrocodone	12,500
Hydromorphone	12,500
6-Monoacetylmorphine	250
Morphine-3-glucuronid	2,500
Nalorphine	25,000
Thebaine	25,000
<b>MOP 200-related compounds</b>	
Morphine	200
Acetylcodeine	100
Buprenorphine	2,000
Codeine	170
Diacetyl Morphin	168
Dihydrocodeine	395
Ethylmorphine	135
Hydrocodone	8,350
Hydromorphone	8,350
6-Monoacetylmorphine	170
Morphine-3-glucuronid	1,670
Nalorphine	16,666

Thebaine	16,666
<b>MOP 100-related compounds</b>	
Morphine	100
Codeine	100
Diacetylmorphine (Heroin)	100
Ethylmorphine	100
Hydromorphone	500
Hydrocodone	500
6-Monoacetylmorphine	100
Morphine-3-β-d-glucuronide	2,000
Oxycodone	20,000
Oxymorphone	20,000
Promethazine	>100,000
Rifampicine	8,400
Thebaine	8,400
Trimipramine	20,000
<b>MPD 300-related compounds</b>	
Methylphenidate	300
<b>MPD 150-related compounds</b>	
Methylphenidate	150
Ritalinc acid	5,000
<b>MQL 300-related compounds</b>	
Methaqualone	300
Amitriptyline	50,000
Carbamazepine	20,000
Nortriptyline	50,000
Phenytoin	40,000
Theophylline	40,000
<b>MTD 300-related compounds</b>	
Methadone	300
(-)-alpha-methadol	2,000
<b>MTD 200-related compounds</b>	
Methadone	200
(-)-alpha-methadol	1,500
Doxylamine	3,500
LAAM HCl	6,500
Alpha Methadol	1,500
EMDP	>100,000
EDDP	>100,000
<b>NFYL 20-related compounds</b>	
Norfentanyl	20
Fentanyl	300
Carfentanil	>10,000
Butyryl Fentanyl	2,500
p-Fluoro Fentanyl	10,000
Valeryl Fentanyl	10,000
Ocfentanil	>10,000
MT-45 diHCl	>100,000
<b>OPI 2000-related compounds</b>	
Morphine	2,000
Acetylcodeine	1,563
Buprenorphine	25,000
Codeine	2,000
Diacetylmorphine (Heroin)	5,000
Dihydrocodeine	1,563
Ethylmorphine	250
Hydromorphone	25,000
Hydrocodone	50,000
Merperidine	>100,000
6-Monoacetylmorphine (6-MAM)	4,000

Morphine-3-β-d-glucuronide	12,500
Nalorphine Hydrochloride	>100,000
Oxycodone	>100,000
Oxymorphone	>100,000
Rifampicine	>100,000
Thebaine	50,000
<b>OPI 1000-related compounds</b>	
Morphine	1,000
Acetylcodeine	1,000
Buprenorphine	>10000
Codeine	1,000
Clomipramine	100,000
Cyclobenzaprine	8,000
Desipramine	100
Doxepin	750
Imipramine	1,000
Maprotiline	300
Nordoxepin	300
Opipramol	750
Promethazine	3,000
Prothipendyl	15,000
Protryptiline	3,000
Prozine	500
Trimipramine	100,000
<b>OXY 300-related compounds</b>	
Oxycodone	300
Hydrocodone	75,000
Hydromorphone	>100,000
Naloxone	>100,000
<b>OXY 100-related compounds</b>	
Oxycodone	100
Hydrocodone	6,250
Hydromorphone	50,000
Naloxone	50,000
Oxymorphone	250
<b>PCP 25-related compounds</b>	
Phencyclidine	25
Hydrocodone	>100,000
Hydromorphone	>100,000
4-hydroxyphencyclidine	75
<b>PGB 1000-related compounds</b>	
Pregabalin	1,000
Gabapentin	>20,000
<b>PGB 500-related compounds</b>	
Pregabalin	500
Gabapentin	>20,000
<b>PPX 300-related compounds</b>	
D-Propoxyphene	300
D-Norpropoxyphene	5,000
<b>SOMA 1000-related compounds</b>	
Carisoprodol	1,000
Meprobamate	>100,000
<b>TAP 1000-related compounds</b>	
Tapentadol	500
N-Desmethyltapentadol	10,000
Tapentadol-O-sulfate	1,000
Tapentadol-β-D-glucuronide	1,000
<b>TCA 1000-related compounds</b>	
Nortriptyline HCl	1,000
Amitriptyline	1,500

Clomipramine	>100,000
Cyclobenzaprine	12,500
Desipramine	188
Doxepin	2,000
Imipramine	2,500
Maprotiline	750
Nordoxepin	500
Promazine	1,000
Promethazine	6,250
Prothipendyl	25,000
Protryptiline	6,250
Prozine	1,250
Trimipramine	>100,000
<b>TCA 300-related compounds</b>	
Nortriptyline	300
Amitriptyline	1,000
Clomipramine	100,000
Cyclobenzaprine	8,000
Desipramine	100
Doxepin	750
Imipramine	1,000
Maprotiline	300
Nordoxepin	300
Opi Pramol	750
Promethazine	3,000
Prothipendyl	15,000
Protryptiline	3,000
Prozine	500
Trimipramine	100,000
<b>THC 500-related compounds</b>	
11-nor- $\Delta$ 9-THC-9-COOH	500
11-nor- $\Delta$ 8-THC-9-COOH	500
$\Delta$ 8-Tetrahydrocannabinol	>50,000
$\Delta$ 9-Tetrahydrocannabinol	>50,000
Cannabinol	>100,000
<b>THC 300-related compounds</b>	
11-nor- $\Delta$ 9-THC-9-COOH	300
11-nor- $\Delta$ 8-THC-9-COOH	300
$\Delta$ 8-Tetrahydrocannabinol	>50,000
$\Delta$ 9-Tetrahydrocannabinol	>50,000
Cannabinol	>100,000
<b>THC 200-related compounds</b>	
11-nor- $\Delta$ 9-THC-9-COOH	200
<b>THC 150-related compounds</b>	
11-nor- $\Delta$ 9-THC-9-COOH	150
11-nor- $\Delta$ 8-THC-9-COOH	90
$\Delta$ 8-Tetrahydrocannabinol	45,000
$\Delta$ 9-Tetrahydrocannabinol	45,000
Cannabinol	60,000
<b>THC 50-related compounds</b>	
11-nor- $\Delta$ 9-THC-9-COOH	50
11-nor- $\Delta$ 8-THC-9-COOH	50
11-hydroxy- $\Delta$ 9-Tetrahydrocannabinol	50
$\Delta$ 8-Tetrahydrocannabinol	15,000
$\Delta$ 9-Tetrahydrocannabinol	15,000
Cannabinol	20,000
Cannabidiol	>100,000
<b>THC 25-related compounds</b>	
11-nor- $\Delta$ 9-THC-9-COOH	25
11-nor- $\Delta$ 8-THC-9-COOH	15

$\Delta$ 8-Tetrahydrocannabinol	7,500
$\Delta$ 9-Tetrahydrocannabinol	7,500
Cannabinol	10,000
<b>TLD 300-related compounds</b>	
Tiildine	300
<b>TRA 300-related compounds</b>	
Tramadol	300
<b>TRA 100-related compounds</b>	
Tramadol	100
Dimenhydrinate	50,000
(+)-Chlorpheniramine	>100,000
(+/-)-Chlorpheniramine	50,000
Phencyclidine	50,000
<b>TPM 350-related compounds</b>	
Tropicamide	350
<b>TZD 200-related compounds</b>	
Trazodone	200
<b>XYL 1000-related compounds</b>	
Xylazine	1,000
Lidocaine	>3,000
<b>ZAL 100-related compounds</b>	
Zaleplon	100
<b>ZOL 50-related compounds</b>	
Zolpidem Phenyl-4-carboxylic	50
Zolpidem	>10,000
<b>ZOL 25-related compounds</b>	
Zolpidem Phenyl-4-carboxylic	25
Zolpidem	>10,000
<b>ZOP 50-related compounds</b>	
N-Desmethylzopiclone	50
Zopiclone-N-oxide	50
Zopiclone	300

### Cross-Reactivity for GHB Test:

The following structurally similar compounds were checked for cross-reaction. None of the tested compounds produced a colour change at 500 $\mu$ g/ml greater than that observed for 10 $\mu$ g/ml of GHB. The calculated cross-reaction is predicted to be less than 2%.

Compound	Cross Level ( $\mu$ g / mL)	Percent Cross Reactivity
GHB	10	100%
1,4-Butanediol	>500	<2%
Gamma-Butyrolactone	>500	<2%
Succinic Semialdehyde	>500	<2%
Gabapentin	>500	<2%
Alpha-Hydroxy-Gamma-Butyrolactone	>500	<2%

### Non Cross-Reacting Compounds

The following compounds were found not to cross-react when tested at concentrations at 100  $\mu$ g/ml.










(-)-Ephedrine (Except MET)	Chlorpheniramine
Oxalic Acid	(+)-Naproxen
Creatine	Penicillin-G
(+/-)-Ephedrine (Except MET)	Dextromethorphan
Pheniramine	4-Dimethylaminoantipyrene

Dextrophan tartrate	Phenothiazine
Acetaminophen	Dopamine
Procaine	Acetone
Erythromycin	Protonix
Albumin	Ethanol
Pseudoephedrine	Amitriptyline
Furosemide	Quinidine
Ampicillin	Glucose
Ranitidine	Aspartame
Guaiacol Glyceryl Ether	Sertraline
Aspirin	Hemoglobin
Tyramine	Benzocaine
Ibuprofen	Vitamin C (Ascorbic Acid)
Bilirubin	Imipramine
Trimeprazine	b-Phenylethyl-amine
Isoproterenol	Venlafaxine
Caffeine	Lidocaine
Ibuprofen	Chloroquine
Methadone	

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### Glossary of Symbols

	Consult instructions for use		Test per Kit		Do Not Reuse
	Store between 36°F to 86°F		Use by		Catalogue #
	Lot Number		For <i>in vitro</i> diagnostic use only		Manufacturer

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