

Barbiturate

The Barbiturate Assay has two cutoffs: 200 ng/mL and 300 ng/mL Secobarbital.

Positive – The drugs listed are in ng/mL at which they will cross-react equivalent to the Secobarbital cutoff.

	200 Cutoff	300 Cutoff
Allobarbital	345	744
Alphenal	284	978
Amobarbital	348	923
Aprobarbital	275	478
Barbital	1,278	4,148
5-Ethyl-5-(4-hydroxyphenyl) barbituric acid	927	4,719
Butabarbital	274	523
Butalbital	304	475
Butobarbital	349	875
Cyclopentobarbital	304	527
Pentobarbital	252	447
Phenobarbital	509 – 971	2,386 – 4,624
Talbutal	194	262
Thiopental	16,400	80,400

Cannabinoid

The Cannabinoid Assay has three cutoffs: 20 ng/mL, 50 ng/mL, and 100 ng/mL 11-nor- Δ^9 -THC-9-COOH.

Positive – The drugs listed are in ng/mL at which they will cross-react equivalent to the 11-nor- Δ^9 -THC-9-COOH cutoff.

	20 Cutoff	50 Cutoff	100 Cutoff
(-)-9-Carboxy-11-nor- Δ^9 -THC-glucuronide	79	95	328
8- β -11-Dihydroxy- Δ^9 -THC	24	58	109
11-Hydroxy- Δ^8 -THC	43	67	129
11-Hydroxy- Δ^9 -THC	42	77	124
8- β -Hydroxy- Δ^9 -THC	26	68	146

Cocaine Metabolite

The Cocaine Metabolite Assay has two cutoffs: 150 ng/mL and 300 ng/mL benzoylecgonine.

Positive – The drugs listed are in µg/mL at which they will cross-react equivalent to the benzoylecgonine cutoff.

	150 Cutoff	300 Cutoff
Cocaine	18 – 53	40 – 119
Ecgonine	2 – 6	7 – 20

Methaqualone

The Methaqualone Assay has one cutoff: 300 ng/mL methaqualone.

Positive – The drugs listed are in ng/mL at which they will cross-react equivalent to the methaqualone cutoff.

	300 Cutoff
3'-Hydroxy-methaqualone	438
4'-Hydroxy-methaqualone	233
2'-Hydroxymethyl-methaqualone	1,670
Mecloqualone	290

Propoxyphene

The Propoxyphene Assay has one cutoff: 300 ng/mL propoxyphene.

Positive – The drugs listed are in ng/mL at which they will cross-react equivalent to the propoxyphene cutoff.

	300 Cutoff
Chlorpromazine	7,800
Norpropoxyphene	800

Negative – Equivalent Concentration –

The drugs listed are in µg/mL at which they will cross-react equivalent to the propoxyphene cutoff.

	300 Cutoff
EDDP (2-Ethylidene-1,5-dimethyl-3, 3-diphenylpyrrolidine)	5,000
Imipramine	30

Phencyclidine

The Phencyclidine Assay has one cutoff: 25 ng/mL phencyclidine.

Positive – The drugs listed are in ng/mL at which they will cross-react equivalent to the phencyclidine cutoff.

	25 Cutoff
1-(1-Phenylcyclohexyl)morpholine (PCM)	41
1-(1-Phenylcyclohexyl)pyrrolidine (PCPy)	54
1-(4-Hydroxypiperidino)phenylcyclohexane	420
1-[1-(2-Thienyl)-cyclohexyl]morpholine (TCM)	80
1-[1-(2-Thienyl)-cyclohexyl]piperidine (TCP)	37
1-[1-(2-Thienyl)-cyclohexyl]pyrrolidine (TCPy)	83
4-Phenyl-4-piperidinocyclohexanol	32
N,N-Diethyl-1-phenylcyclohexylamine (PCDE)	234
Chlorpromazine	#

While chlorpromazine does not cross-react, patients taking chlorpromazine may produce positive results with this assay.

The Phencyclidine Assay has one cutoff: 25 ng/mL phencyclidine.

Negative – Structurally Related – The drugs listed are in µg/mL at which they will cross-react equivalent to the phencyclidine cutoff.

	25 Cutoff
Dextromethorphan	120
Dextrorphan	97
Meperidine	67
Mesoridazine	50

Amphetamines:

The following compounds when tested with the CEDIA Amphetamines/Ecstasy assay, 1000 ng/mL cutoff protocol, yielded the following percent cross-reactivity results:

Compound	Concentration Tested (ng/mL)	% Cross-Reactivity
d-Amphetamine	1000	104
l-Amphetamine	40,000	1.0
d,l-Amphetamine	1,250	88
d,l-Methamphetamine	1,000	77
l-Methamphetamine	8,000	18
3,4-Methylenedioxy-amphetamine (MDA)	1000	116
3,4-Methylenedioxy-methamphetamine (MDMA)	500	196
3,4-Methylenedioxy-ethylamphetamine (MDEA)	300	172
N-Methylbenzodioxazolybutanamine (MBDB)	900	121
Benzodioxazolybutanamine (BDB)	1000	76
Phentermine	25,000	3.3
d,l-Phenylpropanolamine	500,000	0.3
d-Pseudoephedrine	160,000	0.9
l-Ephedrine	250,000	0.5
p-Methoxyamphetamine (PMA)	2000	24
p-Methoxymethamphetamine (PMMA)	500	100

Benzodiazepines:

The following parent, compounds and metabolites, when tested with CEDIA Benzodiazepine Assay (without β -Glucuronidase) and High Sensitivity Assay (with β -Glucuronidase), yielded the following cross-reactivity results:

Compound	Without β -Glucuronidase		With β -Glucuronidase	
	Tested ng/mL	%Cross-Reactivity	Tested ng/mL	%Cross-Reactivity
7-NH ₂ -Flunitrazepam	-	-	200	99
7-NH ₂ -Nitrazepam	-	-	250	83
α -OH-Alprazolam	163	188	115	167
α -OH-Triazolam	150	193	125	155
Alprazolam	138	205	100	220
Alprazolam glucuronide	-	-	200	100
Bromazepam	300	110	190	104
Chlordiazepoxide	2083	13	1200	16
Clobazam	400	62	300	59
Clonazepam	188	140	225	71
Clorazepate	325	84	300	75
Delorazepam	150	184	100	197
Demoxepam	1900	14	1000	19
Desalkylflurazepam	138	210	115	173
Diazepam	110	247	125	154
Estazolam	125	220	95	239
Flunitrazepam	188	135	175	109
Flurazepam	150	189	100	195
Halazepam	200	145	200	101
Lorazepam	208	122	175	115
Lorazepam glucuronide	10000	1	400	45
Lormetazepam	163	165	150	137
Medazepam	200	135	150	118
NH ₂ -Clonazepam	-	-	200	96
Nitrazepam	300	100	200	100
Nordiazepam	150	211	120	173
Oxaprozin	10000	2	10000	2
Oxazepam	275	107	165	125
Oxazepam glucuronide	10000	1	800	25
Praxepam	150	184	160	116
Temazepam	175	144	180	93
Temazepam glucuronide	10000	1	750	25
Triazolam	138	191	90	217

Buprenorphine:

The cross-reactivity of Buprenorphine and its metabolites was evaluated by adding known amounts of each analyte to drug free urine. As indicated by the results in the table below, Buprenorphine, Norbuprenorphine and Norbuprenorphine-glucuronide exhibited $\geq 100\%$ cross-reactivity. Buprenorphine-glucuronide showed less cross-reactivity.

Buprenorphine and its metabolites	Tested Concentration (ng/mL)	Pos/Neg	Cross-reactivity (%)
Buprenorphine	10	Pos	100
Norbuprenorphine	8	Pos	125
Buprenorphine- β -D-glucuronide	13	Pos	76.9
Norbuprenorphine- β -D-glucuronide	10	Pos	100

Methadone Metabolite:

The following parent compounds and metabolites, when tested with the CEDIA EDDP assay, 100 ng/mL protocol, yielded the following cross-reactivity results:

Compound	Concentration Tested (ng/mL)	% Cross Reactivity
EDDP	100	100
EMDP	200,000	0.004
Methadone	600,000	0.016
α -levo-acetylmethadol	1,000,000	0.000
α -levo-noracetylmethadol	1,000,000	0.001
α -levo-dinoracetylmethadol	1,000,000	0.000

Hydrocodone:

The cross-reactivity of Hydrocodone and its metabolites was evaluated by adding known amounts of each metabolite to drug-free negative urine. As indicated by the results in the table below, Hydromorphone and Hydromorphone 3 β -D-glucuronide exhibited $>100\%$ cross-reactivity. Norhydrocodone and 6-Hydrocodol showed significantly less cross reactivity.

Hydrocodone and its metabolites	Tested Concentration (ng/mL)	Pos/Neg	% Cross-reactivity
Neg urine	0	Pos	0%
Hydrocodone	300	Pos	102%
Hydromorphone	250	Pos	122%
Hydromorphone-3 β -glucuronide	250	Pos	122%
Norhydrocodone	10,000	Pos	3.1%
Dihydrocodeine	11,000	Pos	2.7%

Opiates:

The following parent compounds and metabolites, when tested with the CEDIA Opiate assay, yielded the following percent cross-reactivity results:

Compound	Concentration Tested (ng/mL)	% Cross Reactivity
Morphine	300	100
Codeine	300	125
Diacetylmorphine	300	53
Dihydrocodeine	300	50
Hydrocodone	300	48
Hydromorphone	300	57
Imipramine	20,000	1.6
Morphine-3-glucuronide	300	81
Morphine-6-glucuronide	300	47
6-Monoacetylmorphine	300	81
Meperidine	150,000	0.2
Oxymorphone	20,000	1.9
Oxycodone	10,000	3.1

Oxycodone:

The cross-reactivity of oxycodone metabolites, oxymorphone, noroxymorphone and noroxycodone, was evaluated by adding known amounts of each metabolite to oxycodone free urine. As indicated by the results in the table below, oxymorphone exhibits 103% cross reactivity with oxycodone; noroxymorphone and noroxycodone show no evidence of significant cross-reactivity.

Compound	Concentration tested (ng/mL)	Recovery (ng/mL)	% Cross-reactivity
Oxycodone	300	300	100
Oxymorphone	300	308	103
Noroxymorphone	500,000	303.5	<0.1
Noroxycodone	50,000	41.5	<0.1