

Drugs of Abuse

Concentrations of Compounds that Produce a Result Approximately Equivalent to the Cut-off Value.

Drug Category: Amphetamines

Compound/Drug	Cut-off
	<u>Unit: ng/mL</u>
d-amphetamine	1000
d,l-methamphetamine	1500
d,l-amphetamine	1961
l-methamphetamine	1798
l-amphetamine	8651
MDA	3794
MDMA	13037
MDEA	11192
	<u>Unit: µg/mL</u>
4-chloramphetamine	8.2
benzphetamine*	1.3
bupropion	814
chloroquine	3233
l-ephedrine	2240
fenfluramine	75
mephentermine	22.2
methoxyphenamine	231
nor-pseudoephedrine	142
phenmetrazine	6.9
phentermine	16.8
phenylpropanolamine	2000
propranolol	306
d,l-pseudoephedrine	4340
quinacrine	5696
tranylcypromine	85
tyramine	390
* Benzphetamine metabolized to amphetamine and methamphetamine.	

Drug Category: Benzodiazepine

Compound/Drug	Cut-off
	<u>Unit: ng/mL</u>
alprazolam	65
7-aminoclonazepam	2600
7-aminoflunitrazepam	590
bromazepam	630
chlordiazepoxide	3300
clobazam	260
clonazepam	580
clorazepate	*
clotiazepam	380
demoxepam	1600
N-desalkylflurazepam	130
N-desmethyldiazepam	110
diazepam	70
estazolam	90
flunitrazepam	140
flurazepam	190
halazepam	110
α -hydroxyalprazolam	100
α -hydroxyalprazolam glucuronide [†]	110
1-N-hydroxyethylflurazepam	150
α -hydroxytriazolam	130
ketazolam	100
lorazepam	600
lorazepam glucuronide [†]	>20,000
medazepam	150
midazolam	130
nitrazepam	320
norchlordiazepoxide	2600
oxazepam	250
oxazepam glucuronide [†]	>50,000
prazepam	90
temazepam	140
temazepam glucuronide [†]	6900
tetrazepam	70
triazolam	130

* Clorazepate degrades rapidly in stomach acid to nordiazepam. Nordiazepam hydroxylates to oxazepam.

[†] The glucuronide metabolite of α -hydroxyalprazolam cross-reacts with this method.
Other glucuronide metabolites, such as lorazepam, oxazepam, and temazepam cross-react to a limited extent. The cross-reactivity of other glucuronide metabolites with this method is not known.

Drug Category: Barbiturate

Compound/Drug	Cut-off
	<u>Unit: ng/mL</u>
allobarbital	345
alphenal	284
amobarbital	348
aprobarbital	275
barbital	1278
5-ethyl-5-(4-hydroxyphenyl) barbituric acid	927
butabarbital	274
butalbital	304
butobarbital	349
cyclopentobarbital	304
pentobarbital	252
phenobarbital	509-971*
talbutal	194
thiopental	16,400
* Observed Range	

Drug Category: Cannabinoid (THC)

Compound/Drug	Cut-off
	<u>Unit: ng/mL</u>
8- β -11-Dihydroxy- Δ^9 -THC	58
8- β -Hydroxy- Δ^9 -THC	68
11-Hydroxy- Δ^8 -THC	67
11-Hydroxy- Δ^9 -THC	77
9-Carboxy-11-nor- Δ^9 -THC-glucuronide	95

Drug Category: Cocaine Metabolite

Compound/Drug	Cut-off
	<u>Unit: μg/mL</u>
cocaine	40-119
ecgonine	7-20

Drug Category: Methadone

Compound/Drug	Cut-off
Methadone	300 ng/mL
<p>NOTE: ONLY Methadone is detected. The method does not detect the metabolite, L-α-acetylmethadol (LAAM) at concentrations that would be found in the urine of patients on LAAM therapy.</p>	

Drug Category: Opiate

Compound/Drug	Cut-off
	<u>Unit: ng/mL</u>
codeine	102-306
dihydrocodeine	291
hydrocodone	247
hydromorphone	498
levallorphan	>5000*
levorphanol	1048
meperidine	50,000**
6-acetylmorphine	435
morphine-3-glucuronide (heroin metabolite)	626
nalorphine	5540*
naloxone	360,000
oxycodone	1500
oxymorphone	9300
<p>* Therapeutic or toxic urinary levels of levallorphan and nalorphine are not reported in the literature.</p> <p>** Meperidine urinary concentrations of 150,000 ng/mL have been measured in cases of fatal meperidine overdose.</p> <p>NOTE: Therapeutic doses of ofloxacin (Floxin) or levofloxacin (Levaquin) –non-opiates–may produce positive results with this method. A positive result from an individual taking ofloxacin or levofloxacin should be interpreted with caution and confirmed by another method.</p>	

Drug Category: Phencyclidine (PCP)

Compound/Drug	Cut-off
	<u>Unit: ng/mL</u>
N, N-diethyl-1-phenylcyclohexylamine (PCDE)	234
1-(4-hydroxypiperidino)phenylcyclohexane	420
1-(1-phenylcyclohexyl)morpholine (PCM)	41
1-(1-phenylcyclohexyl)pyrrolidine (PCPy)	54
4-phenyl-4-piperidinocyclohexanol	32
1-[1-(2-Thienyl)-cyclohexyl]morpholine (TCM)	80
1-[1-(2-Thienyl)-cyclohexyl]piperidine (TCP)	37
1-[1-(2-Thienyl)-cyclohexyl]pyrrolidine (TCPy)	83
	<u>Unit: µg/mL</u>
dextromethorphan	120
dextrophan	97
meperidine	67
mesoridazine	50