

Drugs Detectable by Drug Screen—Billings Clinic Laboratory

Billings Clinic: #4129 “Drug Screen, Urine” and Billings Clinic: #4379 “Drug Screen Plus Cannabinoids, Urine” are immunoassays used for qualitative determination of the presence of major metabolites of drugs of abuse (phencyclidine, benzodiazepines, cocaine metabolite, amphetamines, tetrahydrocannabinol, opiates, and barbiturates) in urine.

Cut-Off Concentrations

<u>PCP</u>	Phencyclidine	25 ng/mL
<u>BENZ</u>	Benzodiazepines	100 ng/mL
<u>COC</u>	Cocaine	300 ng/mL
<u>AMP</u>	Amphetamines	1,000 ng/mL
<u>THC</u>	Tetrahydrocannabinol (for Billings Clinic: #4129 only)	50 ng/mL
<u>OPI</u>	Opiates	300 ng/mL
<u>BAR</u>	Barbiturates	200 ng/mL

These tests provide only a preliminary test result. A more specific alternative chemical method must be used in order to obtain a confirmed analytical result. Clinical consideration and professional judgment should be used when considering any drug of abuse test result, especially when preliminary positive results are used.

Specificity

The specificity of each of the drug classes in Billings Clinic: #4129 “Drug Screen, Urine” and Billings Clinic: #4379 “Drug Screen Plus Cannabinoids, Urine” tests have been extensively tested. A portion of the compounds representative of each class are listed below and are expressed as the concentration that produces a positive result.

A POSITIVE result was produced by the following compounds at concentrations listed below:

Amphetamines	ng/mL	Opiates	ng/mL
dI-Amphetamine	2,250	6-Acetylmorphine	369
I-Amphetamine	20,313	Codeine	320
p-Hydroxyamphetamine	35,438	Demerol® (Meperidine)	42,500
dI-Methamphetamine	86,934	Dihydrocodeine	397
d-Methamphetamine	59,072	Dihydromorphine	459
Methylenedioxyamphetamine (MDA)	2,123	Diluadid® (Hydromorphone)	760
β-Phenethylamine	45,941	Ethyl Morphine	450
Propylhexidine	27,076	Hydrocodone (Hycodone®)	560
		Morphine	300
		Morphine-3-Glucuronide	746
Cocaine	ng/mL	n-Norcodeine	51,000
Benzoyllecgonine	300	Oxycodone (Percodan®)	35,700
Cocaine	9,910	Thebaine	514
Ecgonine	19,050		
Barbiturates	ng/mL	PCP (Phencyclidine)	ng/mL
Allobarbitol (Dialog®)	323	Phencyclidine	25
Amobarbitol (Amytal®)	894	Thienylcyclonexylpiperidine	28
Aprobarbitol (Alurate®)	285		
Barbitol	1,596	THC (for test #4129 only)	ng/mL
Butabarbitol (Butisol®)	579	8-Alpha-Hydroxy-D ⁹ -THC	157
Butalbital (Fiorinal®)	359	8-β-11-Dihydroxy-D ⁹ -THC	344
Cyclopentobarbitol	214	Cannabinol	1,360
d-Hydroxyphenobarbitol	890	11-Hydroxy-D ⁹ -THC	386
Pentobarbitol (Nembutal®)	504	11-Hydroxy-cannabinol	2,714
Phenobarbitol (Luminal®)	721	11-Nor-D ⁹ -THC-9-Carboxylic Acid	50
Secobarbitol (Seconal®)	200	D ⁹ -THC	5,063

Specificity (Cont.)

Benzodiazepines	ng/mL	Benzodiazepines (cont.)	ng/mL
7-Acetamidonitrazepam	61,934	Didesethylflurazepam	112
Alprazolam (Xanax®)	73	Flunitrazepam (Rohypnol®)	227
7-Aminonitrazepam	192	α-Hydroxyalprazolam	74
Ativan® (Lorazepam)	204	4-Hydroxyalprazolam	107
Bromazepam	141	Hydroxyethylflurazepam	99
Chlordiazepoxide (Librium®)	102	3-Hydroxyflunitrazepam	582
Clonazepam (Klonopin®)	210	α-Hydroxytriazolam	73
Clorazepate K+ salt	231	Halcion® (Triazolam)	77
Dalmane® (Flurazepam)	127	Medazepam	252
Demoxepam	99	Midazolam (Versed®)	102
Desalkylflurazepam	200	Nitrazepam	133
Desmethylchlordiazepoxide	158	N-Methyloxazepam	132
Desmethylflunitrazepam	214	Oxazepam (Serax®)	130
Desmethylmedazepam	278	Pinazepam	64
Diazepam (Valium®)	88	Prazepam (Centrax®)	84