URINE PCP

The EMIT II Plus Phencyclidine (PCP) Assay detects phencyclidine or phencyclidine metabolites in human urine.

Non-Interfering Substances

Each of the following compounds when added to urine containing phencyclidine at +/- 25% concentration of the cutoff do not yield a false response relative to the 25 ng/mL cutoff:

Compound	Concentration
Acetone	1.0 g/dL
Ascorbic Acid	1.5 g/dL
Bilirubin	0.25 mg/dL
Creatinine	0.5 g/dL
Ethanol	1.0 g/dL
Gamma Globulin	0.5 g/dL
Glucose	2.0 g/dL
Hemoglobin	115 mg/dL
Human Serum Albumin	0.5 g/dL
Oxalic Acid	0.1 g/dL
Riboflavin	7.5 mg/dL
Sodium Chloride	1.5 g/dL
Urea	6.0 g/dL

Specificity

The table below lists compounds this assay detects and the levels at which the compounds have been found to give a response approximately equivalent to that of the cutoff calibrator, 25 ng/mL. Each concentration represents the reactivity level for the stated compound when it is added to a negative urine specimen. These concentrations are within the range of the levels found in urine following use of the compound or, in the case of metabolites, the parent compound. If a specimen contains more than one compound detected by the assay, lower concentrations than those listed below combine to produce a rate approximately equivalent to or greater than that of the cutoff calibrator.

Compound	Concentration
Dextromethorphan	120 µg/mL
Dextrorphan	97 µg/mL
Mesoridazine	50 µg/mL
Meperdine	67 µg/mL
N,N-Diethyl-1-phenylcyclohexylamine (PCDE)	234 ng/mL
1-(4-Hydroxypiperidino) phenylcyclohexane	420 ng/mL
1-(1-Phenylcyclohexyl) morpholine (PCM)	41 ng/mL
1-(1-Phenylcyclohexyl) pyrrolidine (PCPy)	54 ng/mL
4-Phenyl-4-piperidinocyclohexanol	32 ng/mL
1-[1-(2–Thienyl)-cyclohexyl] morpholine (TCM)	80 ng/mL
1-[1-(2–Thienyl)-cyclohexyl] piperidine (TCP)	37 ng/mL
1-[1-(2–Thienyl)-cyclohexyl] pyrrolidine (TCPy)	83 ng/mL

The table below list the concentrations of compounds that show a negative response to the Emit II Plus Phencyclidine Assay at a 25 ng/mL cutoff.

Compound	Concentration
Acetaminophen	1000 µg/mL
α-Acetyl-N,N-dinormethadol (dinor LAAM)	15 µg/mL
L-α-Acetylmethadol (LAAM)	25 µg/mL
N-Acetylprocainamide (NAPA)	400 µg/mL
Acetylsalicylic Acid	1000 µg/mL
Amitriptyline	125 µg/mL
D-Amphetamine	1000 µg/mL
Benzoylecgonine	1000 µg/mL
Buprenorphine	1000 µg/mL
Caffeine	1000 µg/mL
Chlorpromazine	**
Cimetidine	1000 µg/mL
Clomipramine	2.5 µg/mL
Clonidine	1000 µg/mL
Codeine	500 µg/mL
Cotinine	100 µg/mL
Cyclobenzaprine	62 µg/mL
Desipramine	800 µg/mL
Diphenhydramine	1000 µg/mL
D o x e p i n	2 5 0 µg/mL
(EDDP)	1000 µg/mL
Fluoxetine	1000 µg/mL
Glutethimide	500 µg/mL
Ibuprofen	1000 µg/mL
Ketamine	100 µg/mL
Ketorolac Tromethamine	1000 µg/mL
Lormetazepam	1 µg/mL
LSD	10 ng/mL
Methadone	10 ng/mL
D-Methamphetamine	35 µg/mL
Methaqualone	1500 µg/mL
Morphine	58 µg/mL
Naproxen	1000 µg/mL
Nortriptyline	1000 µg/mL
Oxazepam	300 µg/mL
Phenytoin	1000 µg/mL
Promethazine	170 µg/mL
Propoxyphene	1000 µg/mL
Ranitidine	1000 µg/mL
Scopolamine	500 µg/mL
Secobarbital	1000 µg/mL
11-nor-Δ^9-THC-9-COOH	50 µg/mL
Thioridazine	48 µg/mL
Tramadol	1000 µg/mL
Tyramine	100 µg/mL
Zidovudine (AZT)	2 mg/mL
Zolpidem	100 µg/mL

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

Sensitivity

The sensitivity of the Emit II Plus Phencyclidine Assay is 1.4 ng/mL. This level represents the lowest concentration of phencyclidine that can be distinguished from 0 ng/mL with a confidence level of 95%.

CAMC laboratories use the 25 ng/mL cutoff for the PCP assay.