



Web: MayoMedicalLaboratories.com
E-mail: mml@mayo.edu
Telephone: 800-533-1710
International: +1 855-379-3115
Values are valid only on day of printing.

Limits of Detection (LOD) Table —

Prescription and OTC Drugs

[< Back](#)

Last Updated November 2015

The limits of detections (LODs) listed below reflect the concentrations at which the specific drugs can be reliably detected. If the drug is detected at a level below the listed LOD, it will be reported only if it meets laboratory quality criteria for identification.

Drugs other than those listed below may be detected by GC-MS library matching and will be reported if they meet laboratory quality criteria for identification.

Note: Submission of less than the minimum sample volume requires increasing the limit of detection.

Generic Name	LOD (mcg/mL)	Notes	Urine	Serum
Acetaminophen	10.0			
Amitriptyline	1.0		Variability in the LOD	
Amobarbital	1.0	Preferred test for detection of barbiturates is a specific request; see Specific Drug Group Confirmation		
Bupropion	1.0			
Butabarbital	1.0	Preferred test for detection of barbiturates is a specific request; see Specific Drug Group Confirmation		
Butalbital	10.0	Preferred test for detection of barbiturates is a specific request; see Specific Drug Group Confirmation		
Caffeine	15.0			
Carbamazepine	2.0			
Carisoprodol	5.0			
Chlordiazepoxide	5.0	Preferred test for detection of benzodiazepines is a specific request; see Specific Drug Group Confirmation	Variability in the LOD	
Chlorpheniramine	1.0			
Chlorpromazine	5.0			
Chlorpropamide	5.0			
Citalopram	1.0	Unable to differentiate between R- and S-citalopram, reported as citalopram.	Variability in the LOD	
Clomipramine	1.0		Variability in	

		the LOD	
Clozapine	1.0		
Cyclobenzaprine	1.0		
Desipramine	5.0	Variability in the LOD	Variability in the LOD
Dextromethorphan	5.0		
Diazepam	0.5	Preferred test for detection of benzodiazepines is a specific request; see Specific Drug Group Confirmation	
Diltiazem	1.0		
Diphenhydramine	0.5		
Doxepin	1.0	Variability in the LOD	
Doxylamine	5.0		
EDDP (methadone metabolite)	2.5	Preferred test for detection of methadone and metabolite is a specific request; see Specific Drug Group Confirmation	Only detected in urine
Ethosuximide	5.0		
Etomidate	1.0		
Felbamate	5.0		
Fentanyl	1.0	Preferred test for detection of fentanyl is a specific request; see Specific Drug Group Confirmation	
Fluconazole	5.0		
Fluoxetine	4.0		
Gemfibrozil	5.0		
Hydrocodone	5.0	Preferred test for detection of opiates is a specific request; see Specific Drug Group Confirmation	Variability in the LOD
Hydroxyzine	5.0	Variability in the LOD	
Ibuprofen	25.0	Variability in the LOD	
Imipramine	0.5	Variability in the LOD	
Lamotrigine	25.0	Variability in the LOD	
Lidocaine	1.0		
Lorazepam	5.0	Preferred test for detection of benzodiazepines is a specific request; see Specific Drug Group Confirmation	Variability in the LOD
Meperidine	1.0	Variability in the LOD	
Mephobarbital	1.0	Preferred test for detection of barbiturates is a specific request; see Specific Drug Group Confirmation	
Meprobamate	5.0		
Metaxalone	1.0		
Methadone	1.0	Preferred test for detection of methadone is a specific request; see	Variability in the LOD

Specific Drug Group Confirmation			
Methocarbamol	2.5	Variability in the LOD	
Methsuximide	1.0		
Methylphenidate	10.0		
Metronidazole	5.0		
Midazolam	1.0	Preferred test for detection of benzodiazepines is a specific request; see Specific Drug Group Confirmation	
Mirtazapine	1.0		
Naproxen	30.0		
Nordiazepam	1.0		
Normethsuximide	10.0		
Norpropoxyphene	10.0	Preferred test for detection of propoxyphene is a specific request; see Specific Drug Group Confirmation	
Nortriptyline	1.0	Variability in the LOD	
Oxcarbazepine Metabolite	5.0		
Paroxetine	20.0	Variability in the LOD	Variability in the LOD
Pentazocine	5.0		
Pentobarbital	5.0	Preferred test for detection of barbiturates is a specific request; see Specific Drug Group Confirmation	
Pentoxifylline	1.0		
Phencyclidine	1.0	Preferred test for detection of PCP is a specific request; see Specific Drug Group Confirmation	
Phenobarbital	5.0	Preferred test for detection of barbiturates is a specific request; see Specific Drug Group Confirmation	
Phenytoin	5.0		
Primidone	5.0		
Promethazine	1.0		
Propofol	5.0		
Quetiapine	5.0	Variability in the LOD	Variability in the LOD
Quinidine	5.0	Variability in the LOD	
Salicylate	5.0		
Secobarbital	1.0	Preferred test for detection of barbiturates is a specific request; see Specific Drug Group Confirmation	
Sertraline	1.0	Variability in the LOD	Variability in the LOD
Temazepam	1.0	Preferred test for detection of benzodiazepines is a specific request; see Specific Drug Group Confirmation	
Theophylline	5.0	Variability in the LOD	

Thiopental	1.0	Preferred test for detection of barbiturates is a specific request; see Specific Drug Group Confirmation
Thioridazine	1.0	
Ticlopidine	1.0	
Topiramate	5.0	
Tramadol	5.0	
Trazodone	2.0	
Trimipramine	1.0	
Valproic Acid	5.0	
Venlafaxine	2.0	
Verapamil	1.0	
Zolpidem	1.0	