

Meperidine

Urine HEIA[®] Drug Screening Kit



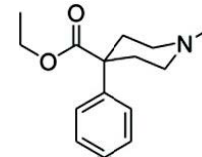
Meperidine is a synthetic narcotic analgesic which acts on the central nervous system by a mechanism that is similar to morphine, although with a shorter duration of action. Meperidine has approximately one tenth the potency of morphine and tolerance to meperidine develops more slowly. It is used to treat moderate to severe pain, producing clinical effects of analgesia, sedation, euphoria, and respiratory depression.¹

Administration: Tablet, liquid

Elimination: Meperidine is metabolized in the liver to normeperidine and meperidinic acid.

Abuse Potential: Meperidine has potential for abuse and diversion and can be habit forming. Physical dependence and tolerance may develop upon repeated administration. Like other narcotics meperidine is subject to the provisions of the federal narcotic laws.¹

Meperidine



Formula: C₁₅H₂₁NO₂

Systematic Name:

Ethyl 1-methyl-4-phenyl-piperidine-4-carboxylate

Brand Names: Demerol[®], Dolantin[®], Mepergan[®], Pethidine

- Exclusively from Immunalysis
- Accurate and trusted results
- Liquid stable and ready to use

1. HOSPIRA, INC, Lake Forest, IL 60045 USA. Demerol package insert, Rev: March, 2005.



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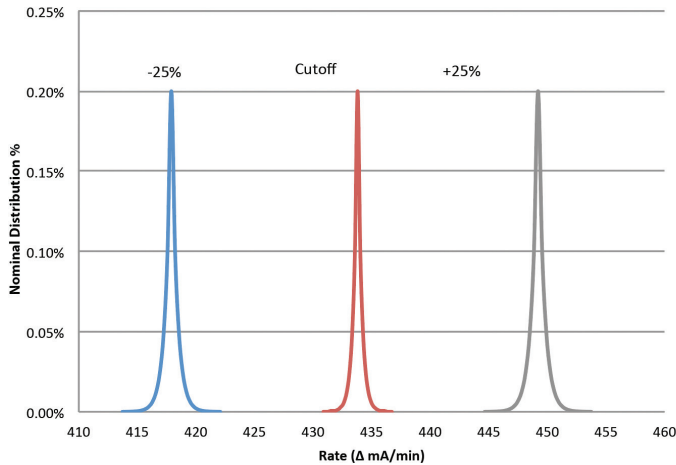
Assay Specifications

Methodology: Homogeneous enzyme immunoassay

Cutoff: 200 ng/mL

Calibrator Range: 0-1000 ng/mL

Overlap: Meperidine (200 ng/mL cutoff)



Qualitative Cross-Reactivity at 200 ng/mL

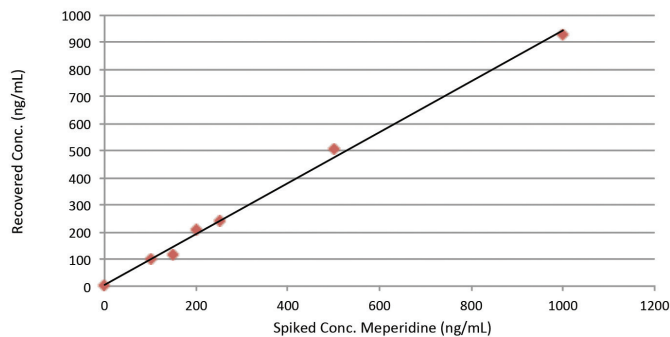
Analyte	Analyte Concentration (ng/mL)	Meperidine Equivalents (ng/mL)	Cross-Reactivity (%)
Meperidine	200	200	100
Normeperidine	1,800	200	11

Other analytes tested at 100,000 ng/mL with none detected are listed in the product insert.

Accuracy:

		GC-MS Confirmation (200 ng/mL)	
		Positive	Negative
HEIA (200 ng/mL)	Positive	31	2
	Negative	0	67

Analytical Recovery: Meperidine



Qualitative Precision at 200 ng/mL

Interday Precision (N = 80)			
Concentration	Mean Conc. (ng/mL)	S.D.	C.V.%
150 ng/mL (control LOW)	270	2.02	0.75
200 ng/mL calibrator	284	2.55	0.9
250 ng/mL (control HIGH)	303	2.36	0.78

Order - Meperidine (HEIA)

Catalog Number	Description
303-0025	25 mL kit
303-0060W	60 mL wedge kit
303-0100	100 mL kit
303-0500	500 mL kit
C303-10-1	200 ng/mL calibrator
C303-10-2	150 and 250 ng/mL controls
C303-10-5	0, 100, 200, 500, and 1000 ng/mL calibrators
Neg-10-1	10 mL negative reference calibrator

The charts and data provided above were generated in studies conducted by Immunalysis Corporation. This information is intended to be representative of the performance of the assay. Refer to the product insert for a full description of the performance characteristics for semi-quantitative and qualitative testing. For forensic use only.