

# Carisoprodol

## Urine HEIA<sup>®</sup> Drug Screening Kit

IMMUNALYSIS<sup>®</sup>

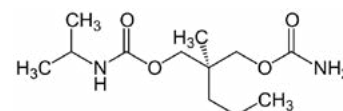
Carisoprodol is indicated for the relief of discomfort associated with acute, painful musculoskeletal conditions. Carisoprodol is known to be metabolized to meprobamate and hydroxy-meprobamate. In 2008, over 10 million prescriptions for carisoprodol were dispensed. Carisoprodol and meprobamate are among the 10 most frequently identified drugs in drug-impaired driving cases.<sup>1</sup>

**Administration:** Round white tablets available in 250 mg and 350 mg strengths.

**Elimination:** The major pathway of carisoprodol metabolism is via the liver by cytochrome enzyme CYP2C19 to form meprobamate. This enzyme exhibits genetic polymorphism. Patients who are poor CYP2C19 metabolizers have a 4-fold increase in exposure to carisoprodol, and concomitant 50% reduced exposure to meprobamate compared to normal CYP2C19 metabolizers. The prevalence of poor metabolizers in Caucasians and African Americans is approximately 3-5% and in Asians is approximately 15-20%.<sup>2</sup>

**Abuse Potential:** Carisoprodol is prone to drug dependence, withdrawal, and abuse. Carisoprodol is approved only for short-term use (for a maximum of two or three weeks). Taking it for longer periods of time could increase the risk of dependency and possibly abuse.<sup>3</sup>

### Carisoprodol



**Formula:** C<sub>12</sub>H<sub>24</sub>N<sub>2</sub>O<sub>4</sub>

**Systematic Name:**

N-isopropyl-2-methyl-2-propyl-1,3-propanediol dicarbamate

**Brand Names:** Soma<sup>®</sup>

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

1. Farrell, L. et al. Recommendations for Toxicological Investigation of Drug Impaired Driving. Journal of Forensic Sciences. 52: 1214-1218 (2007).

2. Meda Pharmaceuticals Inc. SOMA (Carisoprodol) Product Insert. N-090H2-18 Rev 10/09. Somerset, New Jersey 08873-4120.

3. See, S. et al. American Family Physician. 1;78(3): 365-70 (2008).



# Carisoprodol Urine HEIA<sup>®</sup> Drug Screening Kit

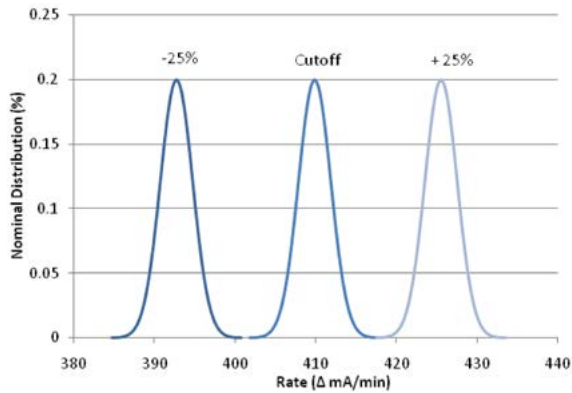
## Assay Specifications

**Methodology:** Homogeneous enzyme immunoassay

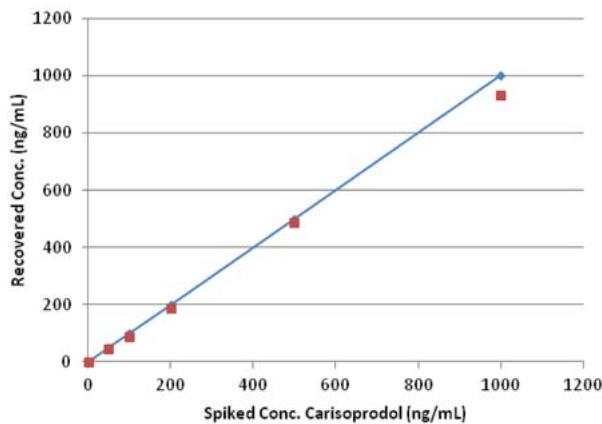
**Cutoff:** 100 ng/mL

**Calibrator Range:** 0-500 ng/mL

## Overlap: Carisoprodol (100 ng/mL cutoff)



## Analytical Recovery: Carisoprodol



## Semi-Quantitative Precision at 100 ng/mL

### Interday Precision (N = 80)

Concentration	Mean Conc. (ng/mL)	C.V.%
50 ng/mL calibrator	50.3	6.3
75 ng/mL (control LOW)	77.1	4.9
100 ng/mL calibrator	101.1	4.9
125 ng/mL (control HIGH)	135.3	5.9
200 ng/mL calibrator	207.4	8.2
500 ng/mL calibrator	505.2	6.7

## Cross-Reactivity

Analyte	Analyte Concentration (ng/mL)	Cross-Reactivity (%)
Meprobamate	70	143
Meperidine	>10,000	N/D
Morphine	>10,000	N/D
Buprenorphine	>10,000	N/D
Codeine	>10,000	N/D
Hydromorphone	>10,000	N/D
Hydrocodone	>10,000	N/D
Oxycodone	>10,000	N/D
Norcodeine	>10,000	N/D
Normorphine	>10,000	N/D
Morphine-3-gluc	>10,000	N/D
Naloxone	>10,000	N/D
Propoxyphene	>10,000	N/D
Tramadol	>10,000	N/D
Trazodone	>10,000	N/D
Venlafaxine	>10,000	N/D

## Accuracy:

		GC-MS Confirmation (100 ng/mL)	
		Positive	Negative
HEIA (100 ng/mL)	Positive	44	0
	Negative	0	42

## Order - Carisoprodol (HEIA)

### Catalog Number Description

331-0025	25 mL kit
331-0060W	60 mL wedge kit
331-0100	100 mL kit
331-0500	500 mL kit
C331-10-1	100 ng/mL calibrator
C331-10-2	75 and 125 ng/mL controls
C331-10-5	0, 50, 100, 200, and 500 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.