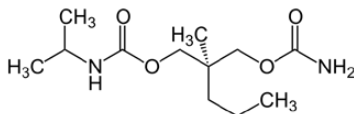


Carisoprodol

Homogeneous Enzyme Immunoassay (HEIA™)

IMMUNALYSIS



Formula: C₁₂H₂₄N₂O₄

Systematic Name: N-isopropyl-2-methyl-2-propyl-1,3-propanediol dicarbamate

Brand Names: Soma®

About Carisoprodol: 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.¹

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

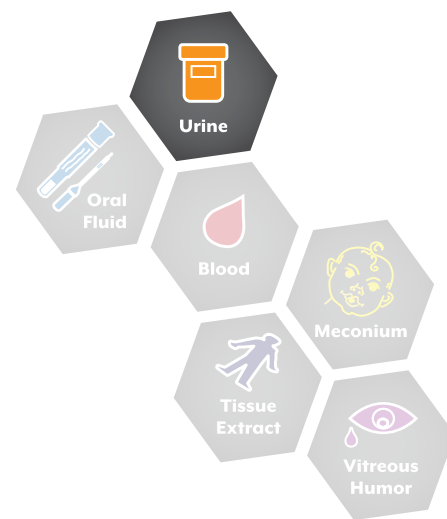
Elimination: The major pathway of Carisoprodol metabolism is via the liver by cytochrome enzyme CYP2C19 to form Meprobamate. This enzyme exhibits genetic polymorphism. Patients who are poor CYP2C19 metabolizers have a 4-fold increase in exposure to Carisoprodol, and concomitant 50% reduced exposure to 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%.²

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.³

Exclusively
from Immunalysis

Accurate and reliable

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).

Soma® is a registered trademark of Meda Pharmaceuticals.



Carisoprodol (HEIA™)



Assay Specifications

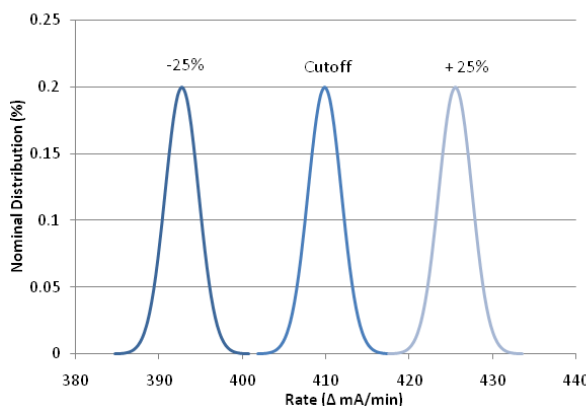
Methodology: Homogeneous Enzyme Immunoassay

Cutoff: 100 ng/mL

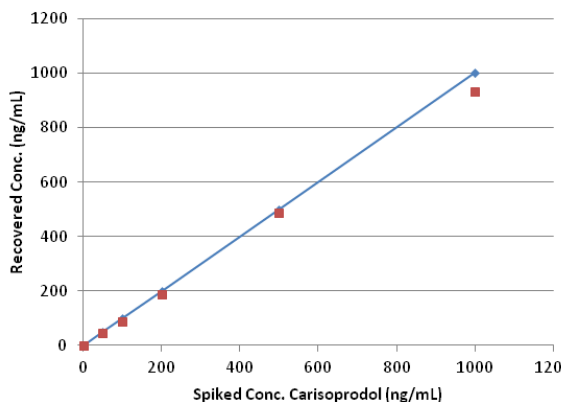
Calibration Range: 0-500 ng/mL

Overlap: Carisoprodol (100 ng/mL Cutoff)

Precision overlap: Qualitative - 0% overlap between cutoff and ± 25% controls.



Analytical Recovery: Carisoprodol



ORDER - Carisoprodol (HEIA)

| Catalog # | Description |
|--------------------------|---|
| 331-0025 / -0100 / -0500 | 25 mL / 100 mL / 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 Urine Control |

Cross-Reactivity

| Analyte | Analyte Concentration (ng/mL) | Carisoprodol Equivalent (ng/mL) | Cross-Reactivity (%) |
|--------------|-------------------------------|---------------------------------|----------------------|
| Carisoprodol | 100 | 100 | 100 |
| Meprobamate | 70 | 100 | 143 |

The following analytes were tested for cross reactivity at 10,000 ng/mL and none were detected: Buprenorphine, Codeine, Dihydrocodeine, Hydrocodone, Hydromorphone, Meperidine, Morphine, Morphine-3-gluc., Naloxone, Naltrexone, Norcodeine, Normorphine, Oxycodone, Oxymorphone, Propoxyphene, Tramadol, Trazodone and Venlafaxine.

GC-MS Confirmation (100 ng/mL)

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

Semi-Quantitative Precision at 100 ng/mL

Interday Precision (n = 80)

| Concentration (ng/mL) | Mean Concentration (ng/mL) | CV% |
|-----------------------|----------------------------|-----|
| 50 Calibrator | 50.3 | 6.3 |
| 75 Control LOW | 77.1 | 4.9 |
| 100 Calibrator | 101.1 | 4.9 |
| 125 Control HIGH | 135.3 | 5.9 |
| 200 Calibrator | 207.4 | 8.2 |
| 500 Calibrator | 505.2 | 6.7 |