

# Oxycodone

## Urine HEIA® Drug Screening Kit



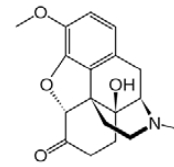
Oxycodone is a semi-synthetic narcotic analgesic generally prescribed for the relief of moderate to severe pain. Its potency is approximately equivalent to morphine. Oxycodone is available as a single compound, but is often combined with other analgesics like acetaminophen or aspirin.

In the last decade, it has become the leading opioid in the United States, where the medical use of opioids increased 400% from 1996 through 2000.<sup>1</sup>

**Administration:** Oral, intramuscular, and intravenous injections.

**Elimination:** Oxycodone and its metabolites are excreted primarily via the kidney. Approximately 8%-14% of the dose is excreted as free oxycodone, up to 50% as conjugated oxycodone, 0% as free oxymorphone, 14% as conjugated oxymorphone, whereas both free and conjugated noroxycodone have been found in the urine but not quantified.<sup>2</sup> Elimination half-life is independent of dose and route of administration. The elimination half-life of controlled-release oxycodone is 4,5 h compared to 3,2 h for immediate-release oxycodone.<sup>1</sup>

**Abuse Potential:** Oxycodone has high potential for physical and psychological dependence. It can be abused in a manner similar to other opioid agonists, legal or illicit. It is generally abused by crushing, chewing, snorting, smoking, or injection. These practices pose a significant risk to the abuser that could result in overdose or death.<sup>3</sup>



**Formula:** C<sub>18</sub>H<sub>21</sub>NO<sub>4</sub>

**Systematic Name:**  
(5R,9R,13S,14S)-4,5a-epoxy-14-hydroxy-3-methoxy-17-methylmorphinan-6-one

**Brand Names:** OxyContin®, Percocet®

- No cross-reactivity with hydrocodone
- Decreased cross-reactivity with other opiates even at 100 ng/mL
- Increased span
- Liquid stable and ready to use

### Assay Specifications

**Methodology:** Homogeneous enzyme immunoassay

**Cutoff:** 100 ng/mL or 300 ng/mL

**Calibration Range:** 0-1000 ng/mL

### Accuracy:

		LC-MS Confirmation (100 ng/mL)	
		Positive	Negative
HEIA (100 ng/mL)	Positive	89	0
	Negative	0	80

### Semi-Quantitative Cross-Reactivity at 100 ng/mL

Analyte	Analyte Concentration (ng/mL)	Cross-Reactivity (%)
Oxycodone	100	100.00
Oxymorphone	100	100.00
Noroxymorphone	5,000	2.00
Oxymorphone-3β-Glucuronide	500	20.00
Noroxycodone	7,500	1.33
Naloxone	3,750	2.67
Naloxone-3-Glucuronide	50,000	0.20
Naltrexone	30,000	0.33
Morphine	350,000	<0.10

### Semi-Quantitative Precision at 100 ng/mL

#### Interday Precision (N = 80)

Concentration	Result	Total Result
25 ng/mL	NEG	80 Negative
50 ng/mL	NEG	80 Negative
75 ng/mL (control LOW)	NEG	80 Negative
100 ng/mL calibrator	n/a	57 Negative/ 23 Positive
125 ng/mL (control HIGH)	POS	80 Positive
150 ng/mL	POS	80 Positive
175 ng/mL	POS	80 Positive

### Order - Oxycodone (HEIA)

Catalog Number	Description
302UR-0025	25 mL kit
302UR-0060W	60 mL wedge kit
302UR-0100	100 mL kit
302UR-0500	500 mL kit
C302UR-10-1-100	100 ng/mL calibrator
C302UR-10-2-100	75 and 125 ng/mL controls
C302UR-10-1-300	300 ng/mL calibrator
C302UR-10-2-300	225 and 375 ng/mL controls
C302UR-10-5	0, 100, 300, 500 and 1000 ng/mL calibrators
Neg-10-1	10 mL negative calibrator

1. F. Coluzzi, C. Mattia, Oxycodone, Pharmacological Profile And Clinical Data In Chronic Pain Management. Minerva Anestesiol 2005;71:451-60.

2. Pöyhiä R, Vainio A, Kalso E. A Review Of Oxycodone's Clinical Pharmacokinetics And Pharmacodynamics. J Pain Symptom Manage 1993;8:63-7.

3. Purdue Pharma, Oxycontin Prescribing Information, 2010.

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 in vitro diagnostic use.

