



Add confidence  
to your drug  
testing program.

## Accurate, reliable screening for Heroin use.

Help combat the growing heroin epidemic with the EMIT II Plus 6-AM Assay.

Heroin use is at its highest level in 20 years in the U.S., according to the 2016 World Drug Report.<sup>1</sup> Past-year heroin abuse or dependence increased by nearly 150% from 2007 to 2013.<sup>2</sup> In fact, there were nearly four times as many heroin overdose deaths in 2013 as there were in 2002.<sup>3</sup>

With heroin usage so widespread, screening for heroin usage has, perhaps, never been more important--making the work your facility performs crucial. Furthermore, an increasing amount of morphine-type drugs are prescribed as analgesics that can cross-react with traditional opiate assays. As such, fast, accurate, and reliable drugs-of-abuse screening is vital.

### Differentiating Heroin Use

With the EMIT II Plus 6-Acetylmorphine (6-AM) assay, you can efficiently, conveniently, and selectively test for heroin use without the need for expensive and time-consuming alternative methods.

### What makes the EMIT II Plus 6-Acetylmorphine (6-AM) Assay beneficial?

The EMIT II Plus 6-Acetylmorphine Assay provides:

- High specificity for 6-Acetylmorphine.
- No cross-reactivity to morphine, morphine metabolites, and common analgesics.
- Qualitative (10 ng/mL cut-off) and semi-quantitative results.
- Low analytical sensitivity of 1.1 ng/mL.
- >99% agreement with the reference method (GC/MS).

Siemens Healthineers has more than 50 years of experience in drug testing diagnostics. Our support provides your laboratory with a high level of service, education, and training that enable you to keep up-to-date with the latest advancements in drugs-of-abuse testing.

# EMIT II Plus 6-Acetylmorphine (6-AM) Assay Specifications

EMIT II Plus 6-Acetylmorphine Assay Performance	
Assay Principle	Homogeneous Enzyme Multiplied Immunoassay (EMIT)
Cutoff	10 ng/mL
Assay Range	2.5 –20 ng/mL
Sample	Urine
Reagent Stability	Unopened until expiration date; Opened working reagent, 4 weeks
Calibration Frequency	Based on control results

Qualitative Precision (mA/min)						
	Level	Mean (mA/min)	Repeatability		Within-Lab	
			SD	%CV	SD	%CV
Control 1	7.5 ng/mL	558	1.5	0.3	7.0	1.3
Cutoff	10.0 ng/mL	591	1.7	0.3	6.5	1.1
Control 2	12.5 ng/mL	622	1.7	0.3	6.0	1.0

  

Semi-quantitative Precision (ng/mL)						
	Level	Mean (ng/mL)	Repeatability		Within-Lab	
			SD	%CV	SD	%CV
Control 1	7.5 ng/mL	8.7	0.12	1.4	0.43	5.1
Cutoff	10.0 ng/mL	11.3	0.14	1.5	0.48	4.2
Control 2	12.5 ng/mL	14.2	0.16	1.1	0.50	3.5

Ordering Information		
10481483	EMIT II Plus 6-AM Assay, 1 Liter	R1 = 1000 mL and R2 = 500 mL
10470440	EMIT II Plus 6-AM Assay, 30mL	R1 = 28 mL and R2 = 14 mL
10445406	EMIT Calibrator/Control Level 0	14 mL
10470441	EMIT II Plus 6-AM/Ecstasy Calibrator/Control Level 1	10 mL
10470442	EMIT II Plus 6-AM/Ecstasy Calibrator/Control Level 2	10 mL
10470443	EMIT II Plus 6-AM/Ecstasy Calibrator/Control Level 3	10 mL
10470444	EMIT II Plus 6-AM/Ecstasy Calibrator/Control Level 4	10 mL

Syva® Emit® II Plus 6-Acetylmorphine Assay



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## Resources

1. United Nations Office on Drugs and Crime [Internet]. World Drug Report; 2016 May [cited 2016 Nov 25]. Available from: [https://www.unodc.org/doc/wdr2016/WORLD\\_DRUG\\_REPORT\\_2016\\_web.pdf](https://www.unodc.org/doc/wdr2016/WORLD_DRUG_REPORT_2016_web.pdf).
- 2-3. Morbidity and Mortality Weekly Report [Internet]. Centers for Disease Control and Prevention. Vital Signs: Demographic and Substance Use Trends Among Heroin Users—United States, 2002-2013; 2015 Jul 10 [cited 2016 Nov 25]. Available from: [http://www.cdc.gov/MMWR/preview/mmwrhtml/mm6426a3.htm?\\_sm\\_au=iVVZJTQj60stL1fq](http://www.cdc.gov/MMWR/preview/mmwrhtml/mm6426a3.htm?_sm_au=iVVZJTQj60stL1fq).
4. American Society of Addiction Medicine [Internet]. Screening and Assessment; 2016 [cited 2016 Nov 25]. Available from: <http://www.asam.org/public-resources/screening-and-assessment>.

Assay Specificity	
Concentrations of compounds that produce negative results vs. the 10 ng/mL Cutoff	
Compounds	Concentration Tested (ng/mL)
Buprenorphine	1,000,000
Codeine	500,000
Dextromethorphan	100,000
Dihydrocodeine	500,000
Heroin	80
Hydrocodone	300,000
Hydromorphone	100,000
Imipramine	200,000
Levorphanol	100,000
Meperidine	800,000
Morphine	100,000
Morphine-3-Glucuronide	600,000
Morphine-6-Glucuronide	600,000
Nalorphine	100,000
Naloxone	300,000
Naltrexone	300,000
Norcodeine	600,000
Normorphine	100,000
Oxycodone	400,000
Oxymorphone	80,000

Qualitative Comparison		
		Reference Method (GC/MS)
		+ -
EMIT II Plus 6-AM Assay on the Viva-E System	+	49 1
	-	0 55
>99% Agreement		

## Siemens Healthineers Headquarters

Siemens Healthcare GmbH  
Henkestr. 127  
91052 Erlangen  
Germany  
Phone: +49 9131 84-0  
[siemens.com/healthineers](http://siemens.com/healthineers)

## Local Contact Information

Siemens Healthcare Diagnostics Inc.  
Laboratory Diagnostics  
511 Benedict Avenue  
Tarrytown, NY 10591-5005  
USA  
Phone: +1-888-826-9702  
[usa.siemens.com/diagnostics](http://usa.siemens.com/diagnostics)