

# 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

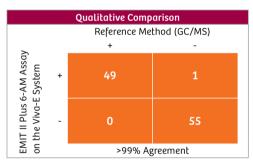
EMIT II Plus 6-Acetylmorphine Assay Performance				
Assay Principle	Homogeneous Enzyme Multiplied Immunoassay (EMIT)			
Cutoff	10 ng/mL			
Assay Range	2.5 –20 ng/mL			
Sample	Urine			
Reagent Stability	Unopened until expiration date; Opened working reagent, 4 weeks			
Calibration Frequency	Based on control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

		Qualitativ	e Precision (m	A/min)		
	Level	Mean	Repeatability		Within-Lab	
		(mA/min)	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-quantit	ative Precisio	n (ng/mL)		
	Mean Mean		Repeatability		Within-Lab	
	Level	(ng/mL)	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			



Assay S	pecificity			
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			



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#### Resources

- 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.
- 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\_uu\_=iVVZjTQj60stL1fq.
- 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.

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