

Usage Guidelines:

- Use supplied concentrated room temperature 10X buffer (RTB).
- Prepare master mix by combining the components in the following order: RTB, reagent grade water, internal standard in methanol, and IMCSzyme RT.
- Add the master mix to the urine sample and mix.
- DO NOT VORTEX.**
- Incubate at room temperature 20-25 °C (do not apply heat).

Recommended Hydrolysis Reaction Setup

	Amount to add (μL)
10X RT Buffer	15
Water	135
ISTD in Methanol	10
IMCSzyme RT	5
Urine Sample	50

215 μL Total Volume

Content and Storage Guidelines:

The enzyme is stable at 2-8 °C. Refer to the Certificate of Analysis and bottle label for the specific lot expiry. **Dilution may reduce shelf-life and is not recommended. Do NOT freeze the enzyme.**

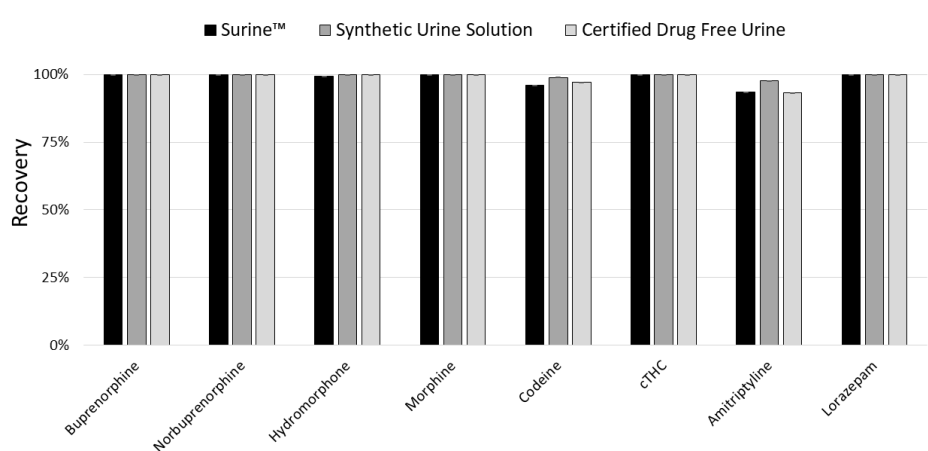
10X Room Temperature Buffer (RTB):

RTB is sterile filtered and is to be used with the enzyme to obtain optimal pH. The original buffer is stable at 2-30 °C. Refer to the Certificate of Analysis and bottle label for the specific lot expiry.

Product Sterility:

IMCS products undergo strict quality control to ensure product sterility. The product can become contaminated if mishandled. Follow aseptic techniques to avoid contamination.

Enzyme Performance based on Recommended Ratios of Buffer, water, IMCSzyme RT and Urine:



Enzyme Performance at pH 4-7:

	Drug Analytes	Activity at pH 5.5 (U/mg)	pH						
			4	4.5	5	5.5	6	6.5	7
Opiates	Morphine-3	9.6							
	Hydromorphone	4.9							
	Oxymorphone	3.6							
	Dihydrocodeine	4.3							
	Codeine	4.1							
Opioids	Tapentadol	13.3							
	Norbuprenorphine	139.4							
	Buprenorphine	40.8							
	O-desmethyldiamadol	5.3							
Benzodiazepines	Oxazepam	34.9							
	Lorazepam	180.7							
	Temazepam	21.0							
Anti-Depressant	Amitriptyline	5.8							
Cannabinoids	cTHC	913.0							

■ > 85% recovery
■ 75-85% recovery
■ < 75% recovery

Contact and Support:

For questions, concerns or technical support please contact us:

Email: custserv@imcstips.com

Toll-free Phone: +1 (888) 560-2073

Web: www.imcstips.com

Address: 110 Centrum Drive, Irmo, SC 29063 USA

Business Hours: Monday-Friday from 9 a.m. - 5 p.m. EST.

Certificate of Analysis and Safety Data Sheets are available under "resources" at: www.imcstips.com.

Product Warranty & Satisfaction Guarantee

IMCS warrants that this product conforms to the information contained in this publication at the time of the quality test date. The same efficient enzymatic hydrolysis result cannot be guaranteed without the use of the supplied buffer. **For R&D use only. Not for drug, household, or other use.**

This product is covered by one or more patents, pending patents, trademarks and/or copyrights owned or controlled by IMCS Inc.