

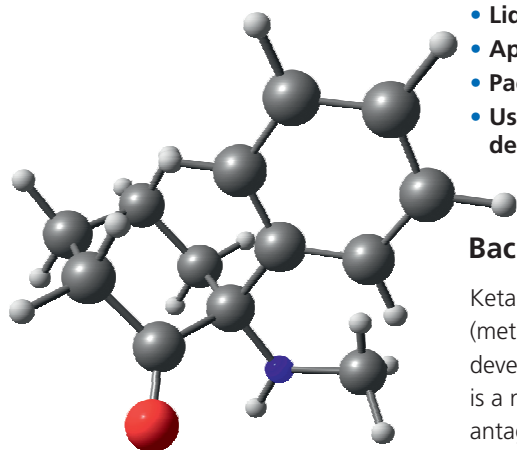


Ketamine Urine HEIA

The Ketamine Urine HEIA is the newest addition to the comprehensive Specialty Diagnostix and Immunalysis Drugs of Abuse portfolio. This highly sensitive enzyme immunoassay provides a reliable and rapid method for the specific detection of Ketamine in human urine samples.

Assay Characteristics

- **Liquid, ready-to-use reagents, calibrators, and controls – no reconstitution required**
- **Application protocols for all major clinical chemistry analysers**
- **Packaging tailored to your laboratory's unique needs**
- **Use of synthetic material to enhance stability of calibrators and controls, and to decrease risk of contamination**



Background

Ketamine or 2-(2-chlorophenyl)-2-(methylamino)-cyclohexanone was originally developed in 1962. Also known as CI-581, it is a non-competitive NMDA-receptor antagonist and structurally related to the hallucinogen phencyclidine (PCP). The shorter duration of action and lower psycho-mimetic profile of ketamine was considered to be an improvement over PCP.

Ketamine is either injected intravenously or intramuscularly and seems particularly suited to situations, where patients need immediate pain relief and intubation is not possible. During the Vietnam War, it was used as an anaesthetic for injured American soldiers and is still employed to treat victims after a natural catastrophe. However, it is recommended to use ketamine only in combination with a sedative such as benzodiazepine to prevent

unwanted psychological side effects. Yet, because of these side effects, Ketamine has become quite popular in the last years as a party drug in clubs or raves.

Ketamine is known under various street names such as K, Special K, Vitamin K, Kate, Keta, Ketamine C. In many countries, it is used as a recreational drug. However, the side effects may include horror trips or the K-Hole, a slang term to describe the subjective state of dissociation from the body caused by ketamine. Due to its purported ability to cause confusion and amnesiac effects, ketamine is sometimes used as a date rape drug.

Since unwanted severe psychedelic episodes only seem to occur with adults, it is still being used as an anaesthetic for children or individuals undergoing minor surgery.

Cross-Reactivities

Analyte	Concentration (ng/mL)	Cross-Reactivity (%)
Dehydronorketamine	100 000	< 0.05 %
Ketamine	100	100 %
Methoxetamine	100 000	< 0.05 %
Norketamine	400	25 %

Intra-assay (total) precision

SQ at 10 ng/mL	Blank	Low Level	c/o Cal.	High Level	Calc. Limits
Mean (ng/mL)	0.54	77.69	103.1	129.7	LDD
Within-Run SD (ng/mL)	2.29	3.54	4.40	4.19	5.62
Within-Run CV (%)	---	4.56	4.27	3.23	LoD
Total SD (ng/mL)	2.81	4.33	5.09	5.29	8.96
Total CV (%)	---	5.57	4.93	4.08	LoQ
N	80	80	80	80	25.8

For inter-assay precision, N = 80 (2 reps per run, 2 runs per day over 20 days)

Accuracy

A total of 91 human urine samples were assayed with the Immunalysis Ketamine Urine HEIA at 100 ng/mL on an Beckman Coulter AU400 Analyzer against LC-MS/MS:

100 ng/mL c/o		LC-MS/MS	
		+	-
HEIA Ketamine	+	51	0
	-	0	40

Ordering Information

Reagents	Size	Order No.
Ketamine Urine HEIA	25 mL	340UR-0025EX
	60 mL	340UR-0060WEX
	100 mL	340UR-0100EX
Calibrators		
Ketamine Urine Calibrator, 100 ng/mL	1 x 5 mL	C340UR-5-1EX
Ketamine Urine Calibrator Set, 0, 50, 100, 200 and 500 ng/mL	5 x 5 mL	C340UR-5-5EX
Controls		
Ketamine Urine Control Set, 75 ng/mL & 125 ng/mL	2 x 5 mL	C340UR-5-2EX

Specialty Diagnostix

Specialty Diagnostix GmbH
 Sailerwöhr 16
 94032 Passau, Germany
 Phone +49 (0)851 988 4930 0
 Fax +49 (0)851 988 4930 8
 info@specialtydiagnostix.de
 www.specialtydiagnostix.de