

new art laboratories



LUCIO[®]-DRUG EIA

Homogeneous Enzymatic Immunoassays for Drug Analysis

Rapid Tests

Laboratory Diagnostics

Laboratory Service

Consulting & Service

nal von minden

Your partner in professional diagnostics

We help you care!

For over 35 years, nal von minden GmbH has been a leader when it comes to medical diagnostics and drug analytics, setting standards in the field by delivering certified products of outstanding quality, an extensive portfolio and excellent customer service and ideas. It is our aim to remain the most innovative company in this field, and your point of call on the subject of *in-vitro* diagnostics. In order to ensure this, we place great emphasis on research, development and healthy growth.

We currently have five different office locations throughout Europe, as well as several subsidiaries and an extensive network of account managers and field consultants. This enables us to provide you with personal service and individual solutions - wherever you are in the world.



The nal von minden GmbH management team (from left):
Sandra von Minden · Roland Meißner · Thomas Zander

Quality as a matter of principle

We operate with a sense of responsibility not only because it is our duty, but because it is within our principles. As a manufacturer of rapid tests for medical and drug analytics, we are keenly aware of the impact our products can have.

For this reason, their quality and our service are not only of utmost priority to us, but also a matter that is close to our heart. Since 2003, our Quality Management System has been certified according to both EN ISO 13485 and ISO 9001, and is audited yearly by TÜV Rheinland. Internal audits, a comprehensive process landscape and corrective and preventative action system also serve to ensure that our high standards are maintained.

We help you care! - with outstanding product quality, an excellent price-performance ratio, personal consultants and fast service. We look forward to working with you.

Your nal von minden team.

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nal von minden GmbH

Your specialist in high quality and cost-efficient medical diagnostics!

We consistently use our capabilities, our knowledge and our experience to widen and refine our portfolio and processes. Our contact with you, the customer, as well as your suggestions, are critical in achieving this. In co-operation

with you, we can achieve innovative solutions to meet your requirements. As your longstanding partner, we want to be the best - not just to satisfy your needs, but to inspire you too.

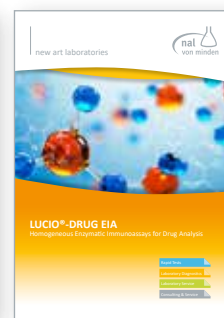
Many of our catalogues, brochures and flyers are available in thirteen languages: German, English, French, Spanish, Italian, Polish, Dutch, Czech, Finnish, Portuguese, Swedish, Danish and Russian. **Further information on our wide product range can be found at www.nal-vonminden.com, or you can contact us directly at info@nal-vonminden.com.**



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The following QR code will take you directly to our download page:



LUCIO[®]-Drug EIA

One in every 200 people on earth is addicted to some form of illicit substance, with one in 20 consuming these on a regular basis. Abuse and addiction is not only a matter for the individual, but also has wider repercussions for their family and for society as a whole - issues such as child custody and public security are too important to be overlooked.

That is why such great importance is placed on the diagnosis of drug abuse. With our LUCIO[®]-Drug EIAs (homogeneous enzyme immunoassays) we offer 35 CE certified assays for the detection of drugs and their metabolites in urine or oral fluid.

Features of the LUCIO[®]-Drug EIA-Kits

- Ready-to-use reagents
- Compatible with all standard analysers
- Two kit sizes available
- Separate controls
- Multi-calibrator
- CE certified



Societies

We are partners, sponsors or members of the following societies and forums:

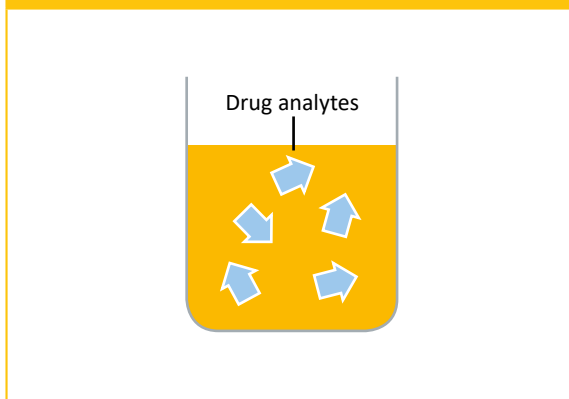
- **TIAFT:** The International Association of Forensic Toxicologists
- **EWDTs:** European Workplace Drug Testing Society
- **GTFCh:** Gesellschaft für Toxikologische und Forensische Chemie
- **IATDMCT:** International Association of Therapeutic Drug Monitoring & Clinical Toxicology
- **SoFT:** Society of Forensic Toxicologists
- **SoHT:** Society of Hair Testing
- **IFDAT:** International Forum for Drug & Alcohol Testing
- **SFTA:** Société Française de Toxicologie Analytique
- **DGKL:** Deutsche Vereinte Gesellschaft für Klinische Chemie und Laboratoriumsmedizin e.V.
- **DGRM:** Deutsche Gesellschaft für Rechtsmedizin
- **DGS:** Deutsche Gesellschaft für Sucht

Test Principle

The LUCIO®-Drug EIAs are homogeneous enzyme immunoassays with ready-to-use liquid reagents. The assay is based on competition between the drug contained in the sample and the drug labeled with the enzyme glucose-6-phosphate dehydrogenase (G6PDH) for a fixed amount of antibody in the reagent. Enzyme activity decreases upon binding to the antibody, and the drug concentration in the sample is measured in terms of enzyme activity.

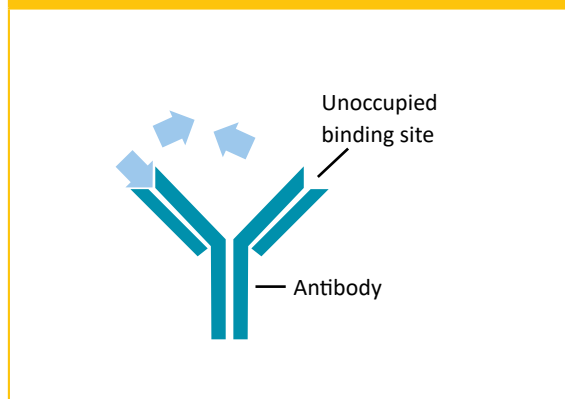
If the target drug is not present in the sample, the drug-labeled G6PDH conjugate is bound to the antibody and enzyme activity is inhibited. The active enzyme converts nicotinamide adenine dinucleotide NAD^+ to NADH, resulting in an absorbance change that can be measured spectrophotometrically at 340 nm.

1. Sample



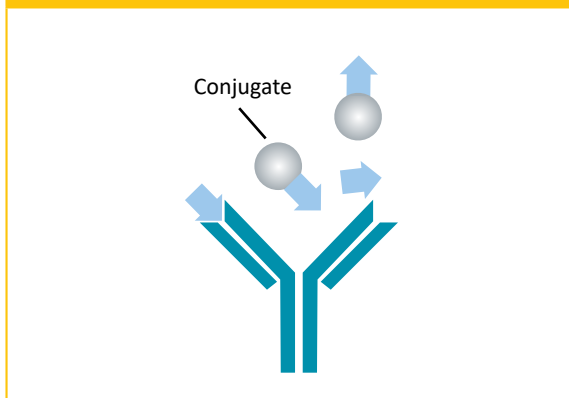
Drug/Drug analytes in sample (ca. 20 μl ; volume can be adapted to requirements of analyser)

2. Addition of Antibodies



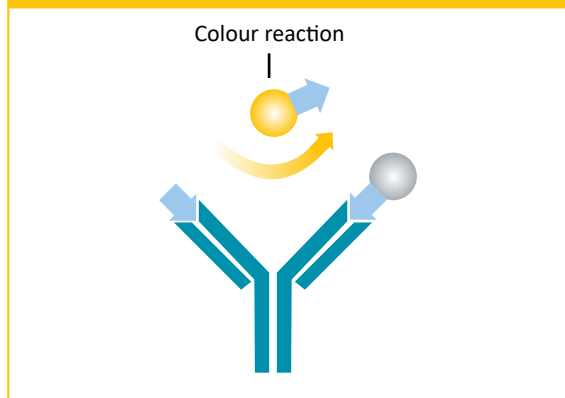
Binding of drug analyte to specific antibodies (200 μl R1; contains G6P and NAD)

3. Addition of Conjugate

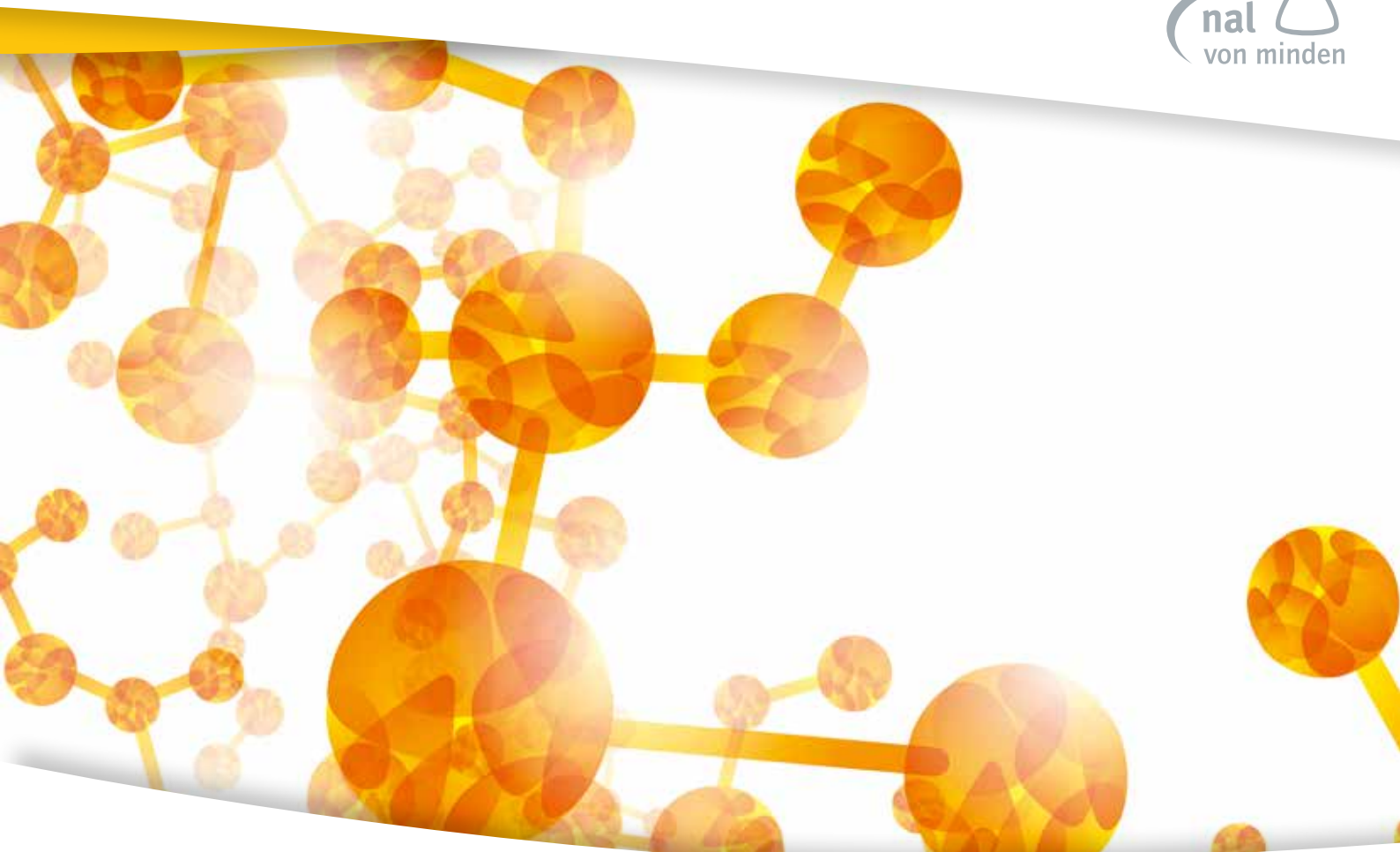


Competition between conjugate and drug analyte for binding to antibodies (75 μl R2; balance within seconds)

4. Enzymatic Reaction



Enzymatic colour reaction amongst the free enzymes (Measuring of absorbance at 340 nm)



LUCIO[®]-Drug EIA Urine

Our range for drug analysis in urine contains reagents, calibrators and controls for the detection of 20 different analytes. Depending on the requirements of your laboratory, we can offer calibrators in various concentrations, as well as two additional controls. Our LUCIO[®]-Drug EIA kits are suitable for use implementation in conjunction with all modern laboratory analysers. We can help you with planning your automation and, as well as high quality technical support, we can provide technical service in the validation and compilation of application protocols for our LUCIO[®]-Drug EIAs.

The reagents have a volume of 100 mL (R1) and 37.5 mL (R2). Calibrators and controls have a volume of 5 mL.

Our parameter range:

6-Acetylmorphine (6-AM)
Alcohol
Amphetamine
Barbiturate
Benzodiazepine
Buprenorphine
Cannabinoids
Cocaine
Cotinine
Ecstasy
EDDP
Hydrocodone
Methadone
Methamphetamine
Morphine/Opiates
Oxycodone
Phencyclidine
Propoxyphene
Spice JWH-018
Spice UR-144/XLR-11

LUCIO®-Drug EIA Urine

Parameter	Concentration [ng/mL]	Product code
6 - Acetylmorphine (6-AM)		
Reagents		401700T
Cut-off 10 ng/mL (6-Acetylmorphine):		
Negative Calibrator 6-AM	0	C400010-6-AM
Low Calibrator	5	C401710
Cut-off Calibrator	10	C401720
Intermediate Calibrator	20	C401730
High Calibrator	40	C401740
Control Level I	7.5	C401750
Control Level II	12.5	C401760
Alcohol (ALC)		
Reagents		401400T
Negative Calibrator	0	C400010
Calibrator 2	100 mg/dl	C401410
Control Level I	50 mg/dl	C401420
Control Level II	300 mg/dl	C401430
Amphetamine 500 (AMP)		
Reagents		400105T
Cut-off 500 ng/mL (Methamphetamine):		
Negative Calibrator	0	C400010
Low Calibrator 500	250	C400115
Cut-off Calibrator 500	500	C400125
Intermediate Calibrator 500	1000	C400135
High Calibrator 500	2000	C400145
Control Level I 500	375	C400155
Control Level II 500	625	C400165
Amphetamine 1000 (AMP)		
Reagents		400100T
Cut-off 1000 ng/mL (Methamphetamine):		
Negative Calibrator	0	C400010
Low Calibrator 1000	500	C400110
Cut-off Calibrator 1000	1000	C400120
Intermediate Calibrator 1000	1500	C400130
High Calibrator 1000	2000	C400140
Control Level I 1000	750	C400150
Control Level II 1000	1250	C400160

LUCIO®-Drug EIA Urine

Parameter	Concentration [ng/mL]	Product code
Barbiturate (BAR)		
Reagents		400400T
Cut-off 200 ng/mL + 300 ng/mL (Secobarbital):		
Negative Calibrator	0	C400010
Calibrator 2	100	C400410
Calibrator 3/Cut-off 200	200	C400420
Calibrator 4/Cut-off 300	300	C400430
Calibrator 5	1000	C400440
Control Level I	100	C400415
Control Level II	200	C400425
Control Level III	300	C400435
Control Level IV	400	C400450
Benzodiazepine (BZD)		
Reagents		400500T
Cut-off 200 ng/mL + 300 ng/mL (Oxazepam):		
Negative Calibrator	0	C400010
Calibrator 2	100	C400510
Calibrator 3/Cut-off 200	200	C400520
Calibrator 4/Cut-off 300	300	C400530
Calibrator 5	1000	C400540
Control Level I	100	C400515
Control Level II	200	C400525
Control Level III	300	C400535
Control Level IV	400	C400550
Buprenorphine (BUP)		
Reagents		401500T
Cut-off 5 ng/mL + 10 ng/mL (Norbuprenorphine):		
Negative Calibrator	0	C400010
Extra Low Calibrator	3	C401505
Low Calibrator/Cut-off 5	5	C401510
Cut-off Calibrator 10	10	C401520
Intermediate Calibrator	20	C401530
High Calibrator	40	C401540
Control Level I	3	C401550
Control Level II	7	C401560
Control Level III	13	C401570
Extra High Calibrator	75	C401580

LUCIO®-Drug EIA Urine

Parameter	Concentration [ng/mL]	Product code
Cannabinoids (THC)		
Reagents		400700T
Cut-off 25 ng/mL + 50 ng/mL + 100 ng/mL (THC):		
THC-Negative Calibrator	0	C400010-THC
Calibrator 2	12,5	C400710
Calibrator 3/Cut-off 25	25	C400720
Calibrator 4	37,5	C400735
Calibrator 5/Cut-off 50	50	C400740
Calibrator 6	75	C400750
Calibrator 7/Cut-off 100	100	C400760
Calibrator 8	150	C400770
Calibrator 9	200	C400780
Control Level I	18,75	C400715
Control Level II	31,25	C400730
Control Level III	75	C400755
Control Level IV	37,5	C400790
Control Level V	62,5	C400795
Control Level VI	125	C400797
Cocaine 150 (COC)		
Reagents		400205T
Cut-off 150 ng/mL (Benzoylecgonine):		
Negative Calibrator	0	C400010
Low Calibrator 150	75	C400215
Cut-off Calibrator 150	150	C400225
Intermediate Calibrator 150	300	C400235
High Calibrator 150	1000	C400245
Control Level I 150	112,5	C400255
Control Level II 150	187,5	C400265

LUCIO®-Drug EIA Urine

Parameter	Concentration [ng/mL]	Product code
Cocaine 300 (COC)		
Reagents		400200T
Cut-off 300 ng/mL (Benzoyllecgonine):		
Negative Calibrator	0	C400010
Low Calibrator 300	150	C400210
Cut-off Calibrator 300	300	C400220
Intermediate Calibrator 300	1000	C400230
High Calibrator 300	3000	C400240
Control Level I 300	225	C400250
Control Level II 300	375	C400260
Cotinine (COT)		
Reagents		401300T
Cut-off 500 ng/mL (Cotinine):		
Negative Calibrator	0	C400010
Low Calibrator	250	C401310
Cut-off Calibrator	500	C401320
Intermediate Calibrator	1000	C401330
High Calibrator	2000	C401340
Control Level I	250	C401350
Control Level II	750	C401360
Ecstasy (XTC)		
Reagents		401100T
Cut-off 500 ng/mL (Ecstasy):		
Negative Calibrator	0	C400010
Low Calibrator	100	C401110
Cut-off Calibrator	500	C401120
Intermediate Calibrator	750	C401130
High Calibrator	1000	C401140
Control Level I	375	C401150
Control Level II	625	C401160
EDDP (EDDP)		
Reagents		401000T
Cut-off 300 ng/mL (EDDP):		
Negative Calibrator	0	C400010
Low Calibrator	150	C401010
Cut-off Calibrator	300	C401020
Intermediate Calibrator	600	C401030
High Calibrator	1000	C401040
Control Level I	225	C401050
Control Level II	375	C401060

LUCIO®-Drug EIA Urine

Parameter	Concentration [ng/mL]	Product code
Hydrocodone (HYDRO)		
Reagents		401600T
Cut-off 100 ng/mL (Hydrocodone)		
Negative Calibrator	0	C400010
Low Calibrator	50	C401610
Cut-off Calibrator	100	C401620
Intermediate Calibrator	150	C401630
High Calibrator	300	C401640
Control Level I	75	C401650
Control Level II	125	C401660
Methadone (MTD)		
Reagents		400600T
Cut-off 300 ng/mL (Methadone):		
Negative Calibrator	0	C400010
Low Calibrator	150	C400610
Cut-off Calibrator	300	C400620
Intermediate Calibrator	600	C400630
High Calibrator	1000	C400640
Control Level I	225	C400650
Control Level II	375	C400660
Methamphetamine (MET)		
Reagents		402100T
Cut-off 500 ng/mL (Methamphetamine):		
Negative Calibrator	0	C400010
Low Calibrator	250	C402110
Cut-off Calibrator	500	C402120
Intermediate Calibrator	1000	C402130
High Calibrator	2000	C402140
Control Level I	375	C402150
Control Level II	625	C402160

LUCIO®-Drug EIA Urine

Parameter	Concentration [ng/mL]	Product code
Morphine/Opiates 300 (OPI)		
Reagents		400300T
Cut-off 300 ng/mL (Morphine):		
Negative Calibrator	0	C400010
Low Calibrator	150	C400310
Cut-off Calibrator	300	C400320
Intermediate Calibrator	600	C400330
High Calibrator	1000	C400340
Control Level I	225	C400350
Control Level II	375	C400360
Morphine/Opiates 2000 (OPI)		
Reagents		400305T
Cut-off 2000 ng/mL (Morphine):		
Negative Calibrator	0	C400010
Low Calibrator	1000	C400315
Cut-off Calibrator	2000	C400325
Intermediate Calibrator	4000	C400335
High Calibrator	6000	C400345
Control Level I	1500	C400355
Control Level II	2500	C400365
Oxycodone (OXY)		
Reagents		400800T
Cut-off 100 ng/mL + 300 ng/mL (Oxycodone):		
Negative Calibrator	0	C400010
Calibrator 2	50	C400810
Calibrator 3/Cut-off 100	100	C400820
Calibrator 4	225	C400840
Calibrator 5/Cut-off 300	300	C400850
Calibrator 6	500	C400870
Calibrator 7	800	C400880
Control Level I	75	C400815
Control Level II	125	C400830
Control Level III	225	C400845
Control Level IV	375	C400860

LUCIO®-Drug EIA Urine

Parameter	Concentration [ng/mL]	Product code
Phencyclidine (PCP)		
Reagents		400900T
Cut-off 25 ng/mL (Phencyclidine):		
Negative Calibrator	0	C400010
Low Calibrator	12.5	C400910
Cut-off Calibrator	25	C400920
Intermediate Calibrator	50	C400930
High Calibrator	100	C400940
Control Level I	18	C400950
Control Level II	32	C400960
Propoxyphene (PPX)		
Reagents		401200T
Cut-off 300 ng/mL (Propoxyphene):		
Negative Calibrator	0	C400010
Low Calibrator	150	C401210
Cut-off Calibrator	300	C401220
Intermediate Calibrator	600	C401230
High Calibrator	1000	C401240
Control Level I	225	C401250
Control Level II	375	C401260
Spice JWH-018		
Reagents		402700T
Cut-off 20 ng/mL (JWH-018):		
THC-Negative Calibrator	0	C400010-THC
Low Calibrator	10	C402710
Cut-off Calibrator	20	C402720
Intermediate Calibrator	35	C402730
High Calibrator	50	C402740
Control Level I	15	C402750
Control Level II	25	C402760
Spice UR-144/XLR-11		
Reagents		402705T
Cut-off 20 ng/mL (UR-144-N):		
THC-Negative Calibrator	0	C400010-THC
Low Calibrator	10	C402715
Cut-off Calibrator	20	C402725
Intermediate Calibrator	35	C402735
High Calibrator	50	C402745
Control Level I	15	C402755
Control Level II	25	C402765

			THC		AMP	MET		EDDP			
		BZD	THC	MTD	AMP		BUP	EDDP	BAR		
XTC	THC	TCA	MTD	MOR	MET	EDDP	COC		BUP	BAR	AMP
AMP	BAR	BUP	BZD	COC	EDDP	MET	MOR	MTD	TCA	THC	XTC
BAR	BZD	MOR	TCA	THC	XTC	COC	MTD	MET	BUP	AMP	EDDP
THC	BUP	AMP	MET	EDDP	COC	MTD	TCA	BZD	MOR	XTC	BAR
BZD	THC	COC	TCA	EDDP	MOR	AMP	XTC	MET	BUP	MTD	BAR
TCA	MET	MTD	AMP	XTC	MOR	THC	COC	BAR	BUP	BZD	EDDP
EDDP	BAR	XTC	MET	BZD	BUP	AMP	MOR	TCA	MTD	COC	THC
BZD	MET	BAR	EDDP		AMP	MOR	MTD	BUP	TCA	XTC	COC
	BZD	BAR	COC	MET	TCA	EDDP	AMP	MOR		MTD	XTC
		MTD	THC				BZD				EDDP

LUCIO[®]-Drug EIA Multi-Calibrators Urine

For the detection of benzoylecgonine (COC), d-methamphetamine (AMP or MET), methadone (MTD), morphine (OPI), oxazepam (BZD) and secobarbital (BAR).

Our multi-calibrators have a volume of 15 ml.

Benefits

- ✓ **Easy to use**
 - ✓ **Compact**
 - ✓ **Cost-effective**
- = Fast and user-optimised test procedure

Parameter, Concentration [ng/mL]	Product code	Parameter, Concentration [ng/mL]	Product code
Low Calibrator		High Calibrator	
75 ng/mL benzoylecgonine, 250 ng/mL d-methamphetamine, 150 ng/mL methadone, 1000 ng/mL morphine, 100 ng/mL oxazepam, 100 ng/mL secobarbital	C400050	1000 ng/mL benzoylecgonine, 1000 ng/mL d-methamphetamine, 1000 ng/mL methadone, 6000 ng/mL morphine, 1000 ng/mL oxazepam, 1000 ng/mL secobarbital	C400053
Cut-off Calibrator		Control Level I	
150 ng/mL benzoylecgonine, 500 ng/mL d-methamphetamine, 300 ng/mL methadone, 2000 ng/mL morphine, 200 ng/mL oxazepam, 200 ng/mL secobarbital	C400051	112,5 ng/mL benzoylecgonine, 375 ng/mL d-methamphetamine, 225 ng/mL methadone, 1500 ng/mL morphine, 150 ng/mL oxazepam, 150 ng/mL secobarbital	C400054
Intermediate Calibrator		Control Level II	
300 ng/mL benzoylecgonine, 750 ng/mL d-methamphetamine, 600 ng/mL methadone, 4000 ng/mL morphine, 500 ng/mL oxazepam, 500 ng/mL secobarbital	C400052	187,5 ng/mL benzoylecgonine, 625 ng/mL d-methamphetamine, 375 ng/mL methadone, 2500 ng/mL morphine, 250 ng/mL oxazepam, 250 ng/mL secobarbital	C400055



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