



# Urine Toxicology Controls

Multi-analyte quality controls designed to monitor the precision of screening, semi-quantitative and confirmatory drugs-of-abuse test procedures





## Liquichek Urine Toxicology Screen Controls



### Liquichek Urine Toxicology Control, Levels S1E & S2E

A human urine control containing drugs of abuse at concentrations 20–25% above or below EIA screen cutoff levels.

- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

▶ For use with  
2,000 ng/mL  
Opiate cutoff



### Liquichek Urine Toxicology Control, Levels S1E Low Opiate & S2E Low Opiate

A human urine control containing drugs of abuse at concentrations 20–25% above or below EIA screen cutoff levels.

- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

▶ For use with  
300 ng/mL  
Opiate cutoff



### Liquichek Urine Toxicology Control, Levels S10 Low Opiate & S20 Low Opiate

A human urine control containing drugs of abuse at concentrations 20–50% below or above commonly used SAMHSA screen cutoff levels.

- 2 year shelf life at -20°C to -70°C
- 30 day open-vial stability at 2–8°C
- 45 day closed vial stability at 2–8°C
- Includes Methamphetamine and Oxazepam

▶ For use with  
300 ng/mL  
Opiate cutoff



## Which Screen Controls are Right for You?

Different methodologies, regulations and guidelines call for quality control materials spiked with purified drugs or drug metabolites at different concentrations. No matter how you define a standard drug panel, or what concentrations you need, Bio-Rad has a control for you.

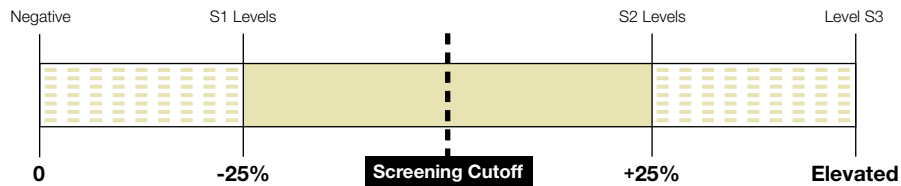
Bio-Rad Drugs-of-Abuse Controls are made from human urine with pH, specific gravity and creatinine that fall within the limits of normal human urine, and meet current SAMHSA\* and other agency guidelines.

### Liquichek Urine Toxicology Screen Control Gravimetric Reference Values

Analytes (ng/mL)	Level S1E Low Opiate	Level S2E Low Opiate	Level S1E	Level S2E	Level S1 Low Opiate	Level S2 Low Opiate	Level S1	Level S2
Catalog Number	<b>423</b>	<b>424</b>	<b>438</b>	<b>439</b>	<b>466</b>	<b>467</b>	<b>461</b>	<b>462</b>
<b>Amphetamines</b>								
d-Amphetamine	–	–	–	–	750	1,250	750	1,250
d-Methamphetamine	750	1,250	750	1,250	–	–	–	–
MDMA	–	–	–	–	–	–	–	–
<b>Barbiturates</b>								
Secobarbital	150	375	150	375	150	375	150	375
<b>Benzodiazepines</b>								
Lormetazepam	150	375	150	375	–	–	–	–
Nordiazepam	–	–	–	–	75	375	75	375
Oxazepam	–	–	–	–	–	–	–	–
<b>Cannabinoids</b>								
11-Nor- $\Delta$ -9-THC-9-COOH	37.5	65	37.5	65	37.5	65	37.5	65
<b>Cocaine</b>								
Benzoyllecgonine	225	375	225	375	225	375	225	375
Ethanol (mg/dL)	40	70	40	70	40	70	40	70
Lysergic Acid Diethylamide (LSD)	0.3	0.8	0.3	0.8	0.3	0.8	0.3	0.8
Methadone	225	375	225	375	225	375	225	375
Methaqualone	225	375	225	375	225	375	225	375
<b>Opiates</b>								
Morphine (Free)	225	375	1,500	2,500	225	375	1,500	2,500
Phencyclidine (PCP)	19	31	19	31	19	31	19	31
Propoxyphene	225	375	225	375	225	375	225	375
<b>Tricyclic Antidepressants</b>								
Nortriptyline	750	1,250	750	1,250	750	1,250	750	1,250

\*United States Substance Abuse and Mental Health Services Administration (formerly NIDA)  
Refer to the package insert for performance and stability claims.





Level S3	Level S1O Low Opiate	Level S2O Low Opiate	Level S1S	Level S2S	SAMHSA* Screen Cutoffs	Analytes (ng/mL)
<b>463</b>	<b>683</b>	<b>706</b>	<b>409</b>	<b>419</b>		Catalog Number
2,000	–	–	–	–		<b>Amphetamines</b>
–	750	1,250	375	625	500	d-Amphetamine
–	–	–	375	625	500	d-Methamphetamine
						MDMA
						<b>Barbiturates</b>
1,000	150	375	–	–		Secobarbital
						<b>Benzodiazepines</b>
–	–	–	–	–		Lormetazepam
1,000	–	–	–	–		Nordiazepam
–	100	300				Oxazepam
						<b>Cannabinoids</b>
125	37.5	65	37.5	65	50	11-Nor- $\Delta$ -9-THC-9-COOH
						<b>Cocaine</b>
500	225	375	113	185	150	Benzoylcegonine
250	40	70	–	–		Ethanol (mg/dL)
2.0	0.3	0.8	–	–		Lysergic Acid Diethylamide (LSD)
750	225	375	–	–		Methadone
750	225	375	–	–		Methaqualone
						<b>Opiates</b>
750	225	375	1,500	2,500	2,000	Morphine (Free)
200	19	31	19	31	25	Phencyclidine (PCP)
750	225	375	–	–		Propoxyphene
						<b>Tricyclic Antidepressants</b>
2,000	–	–	–	–		Nortriptyline

\*United States Substance Abuse and Mental Health Services Administration (formerly NIDA)  
Refer to the package insert for performance and stability claims.

# Liquichek Urine Toxicology Screen Controls



## Liquichek Urine Toxicology Control, Levels S1 & S2

A human urine control containing drugs of abuse at concentrations 20–25% above or below immunoassay screen cutoff levels.

- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

▶ For use with  
2,000 ng/mL  
Opiate cutoff



## Liquichek Urine Toxicology Control, Levels S1 Low Opiate & S2 Low Opiate

A human urine control containing drugs of abuse at concentrations 20–25% above or below immunoassay screen cutoff levels.

- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

▶ For use with  
300 ng/mL  
Opiate cutoff



## Liquichek Urine Toxicology Control, Level S3

A human urine control containing drugs of abuse at elevated levels for immunoassay screening procedures.

- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

▶ For use with  
300 ng/mL  
Opiate cutoff



## Liquichek Urine Toxicology Negative Control

Tested as negative for 32 of the most commonly abused drugs.

- 3 year shelf life at 2–8°C
- 60 day open-vial stability when stored refrigerated at 2–8°C
- Use with screening or confirmatory methods



## Liquichek Urine Toxicology Control, Levels S1S & S2S

A human urine control containing six drugs of abuse at concentrations 20–25% above or below SAMHSA's\* screen cutoff levels.

- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C
- Targets the 500 ng/mL Amphetamine and 150 ng/mL Cocaine cutoffs
- 2,000 ng/mL Opiate cutoff
- Includes MDMA

▶ For use with the 2,000 ng/mL Opiate, 500 ng/mL Amphetamine and 150 ng/mL Cocaine cutoffs.

# Additional Urine Toxicology Controls



## Liquichek Opiate Control

A human urine control containing eight drugs or drug metabolites in two levels, at concentrations above and below most assay cutoffs. This control has been tested by GC/MS, LC/MS/MS and other methods to confirm the recovery of drug quantities added, with representative values provided for screening and confirmatory methods.

- 3 year shelf-life at -20°C to -70°C
- 30 day open-vial stability at 2–8°C

### Analytes

6-Monoacetyl Morphine  
(6-MAM; Heroin Metabolite)  
Buprenorphine

EDDP  
Fentanyl  
Meperidine\*\*

Methadone  
Oxycodone  
Tramadol\*\*

\*United States Substance Abuse and Mental Health Services Administration (formerly NIDA)

\*\*Not for diagnostic use in the United States.

Refer to the package insert for performance and stability claims.



## Liquichek Urine Toxicology Confirmatory Controls



### Liquichek Urine Toxicology Control, Level C1

A human urine control containing drugs of abuse at very low levels or at the Limits of Quantitation (LOQ) for confirmatory test methods.

- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

▶ For use with 300 ng/mL Opiate cutoff



### Liquichek Urine Toxicology Control, Levels C2 Low Opiate & C3 Low Opiate

A human urine control containing drugs of abuse at concentrations 20–25% above or below confirmatory cutoff levels.

- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

▶ For use with 300 ng/mL Opiate cutoff



### Liquichek Urine Toxicology Control, Levels C2 & C3

A human urine control containing drugs of abuse at concentrations 20–25% above or below confirmatory cutoff levels.

- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C



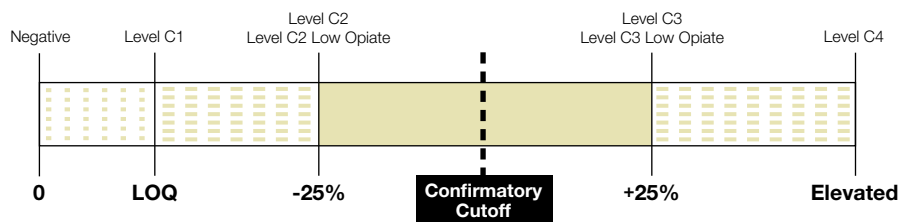
### Liquichek Urine Toxicology Control, Level C4

A human urine control containing drugs of abuse at elevated levels for monitoring confirmatory testing methods.

- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

▶ Levels C2, C3 and C4 are designed for use with 2,000 ng/mL Opiate, 250 ng/mL Amphetamine and 100 ng/mL Benzoylcegonine cutoff concentrations.

# Which Confirmatory Controls are Right for You?



## Liquichek Urine Toxicology Confirmatory Control Gravimetric Reference Values

Analytes (ng/mL)	Level C1	Level C2 Low Opiate	Level C3 Low Opiate	Level C2	Level C3	Level C4
<b>Catalog Number</b>	<b>441</b>	<b>468</b>	<b>469</b>	<b>442</b>	<b>443</b>	<b>444</b>
<b>Amphetamines</b>						
d-Amphetamine	100	375	625	188	312	750
d-Methamphetamine	100	375	625	188	312	750
3, 4-Methylenedioxymethamphetamine (MDMA)	100	–	–	188	312	750
3, 4-Methylenedioxyamphetamine (MDA)	100	–	–	188	312	750
3, 4-Methylenedioxy-N-ethylamphetamine (MDEA)	100	–	–	188	312	750
<b>Barbiturates</b>						
Amobarbital	80	150	250	150	250	1,200
Butalbital	80	150	250	150	250	1,200
Pentobarbital	80	150	250	150	250	1,200
Phenobarbital	80	150	250	150	250	1,200
Secobarbital	80	150	250	150	250	1,200
<b>Benzodiazepines</b>						
Alpha-Hydroxyalprazolam	80	225	375	225	375	1,000
Nordiazepam	80	225	375	225	375	1,000
Oxazepam*	+	+	+	+	+	+
<b>Cannabinoids</b>						
11-Nor- $\Delta$ -9-THC-9-COOH	6	11.5	18.5	11.5	18.5	150
<b>Cocaine</b>						
Benzoyllecgonine	40	115	185	75	125	300
Ethanol (mg/dL)	20	40	70	40	70	250
Lysergic Acid Diethylamide (LSD)	0.2	0.35	0.65	0.35	0.65	4.0
<b>Methadone</b>						
Methadone	120	225	375	225	375	1,000
EDDP (Methadone Metabolite)*	+	+	+	+	+	+
Methaqualone	120	225	375	225	375	1,000
<b>Opiates</b>						
6-Monoacetylmorphine*	+	+	+	+	+	+
Codeine	120	225	375	1,500	2,500	4,000
Morphine-3- $\beta$ -d-Glucuronide	120	225	375	1,500	2,500	4,000
Phencyclidine (PCP)	10	19	31	19	31	100
<b>Propoxyphenes</b>						
Norpropoxyphene	120	225	375	225	375	1,000
Propoxyphene	120	225	375	225	375	1,000

\*Analyte present, no claims are made regarding performance or stability. Refer to the package insert for performance and stability claims.

## Ordering Information

Cat #	Product Name	Quantity
<b>Liquichek Urine Toxicology Controls</b>		
<b>Screen Controls</b>		
461	Level S1 . . . . .	10 x 10 mL
462	Level S2 . . . . .	10 x 10 mL
466	Level S1 Low Opiate . . . . .	10 x 10 mL
467	Level S2 Low Opiate . . . . .	10 x 10 mL
463	Level S3 . . . . .	10 x 10 mL
409	Level S1S . . . . .	10 x 10 mL
419	Level S2S . . . . .	10 x 10 mL
423	Level S1E Low Opiate . . . . .	10 x 10 mL
424	Level S2E Low Opiate . . . . .	10 x 10 mL
438	Level S1E . . . . .	10 x 10 mL
439	Level S2E . . . . .	10 x 10 mL
683	Level S1O Low Opiate . . . . .	10 x 10 mL
706	Level S2O Low Opiate . . . . .	10 x 10 mL

<b>Confirmatory Controls</b>		
441	Level C1 . . . . .	10 x 20 mL
442	Level C2 . . . . .	10 x 20 mL
443	Level C3 . . . . .	10 x 20 mL
444	Level C4 . . . . .	10 x 20 mL
468	Level C2 Low Opiate . . . . .	10 x 20 mL
469	Level C3 Low Opiate . . . . .	10 x 20 mL

<b>Negative Control for Screening or Confirmatory Testing</b>		
460	Negative Control. . . . .	10 x 20 mL

Minipaks also available

Cat #	Product Name	Quantity
<b>Other Urine Toxicology Controls Available</b>		
<b>Liquichek Qualitative Urine Control</b>		
454	Negative Level . . . . .	6 x 3 mL
455	Positive Level . . . . .	6 x 3 mL
454X	Bilevel MiniPak (1 of each level) . . . . .	2 x 3 mL

<b>Liquichek Opiate Control</b>		
12005786	Level 1 . . . . .	6 x 5 mL
12005787	Level 2 . . . . .	6 x 5 mL
12002594	Level 1 MiniPak . . . . .	1 x 5 mL
12002595	Level 2 MiniPak . . . . .	1 x 5 mL

To determine which controls best suit your assay requirements, please contact your local Bio-Rad office.



These controls are featured in the Unity Interlaboratory Program. Participation in the Unity Interlaboratory Program can help improve the quality of your laboratory test results and help you meet regulatory and accreditation requirements worldwide. You may also subscribe to one of our Unity QC Data Management Solutions designed to improve the effectiveness of your statistical process control. Ask your Bio-Rad Account Representative for more information.

**Discover the power of Unity Solutions at [www.QCNet.com](http://www.QCNet.com).**



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