

KOVA® Liqua-Trol™ with Microscopics Level II (Normal with hCG) Urinalysis Control

KOVA* Liqua-Trol**		Lot No: K301561		Expiration Date: 2018-05					
CONSTITUENT	REAGENT TEST STRIP RESULTS ¹								
	SIEMENS REAGENT STRIP ^a								IRIS REAGENT STRIP ⁱ
	Visual	Clinitek®50	Clinitek®STATUS	Clinitek®100	Clinitek®500 / Advantus	Clinitek®Atlas			iChem®VELOCITY™
pH	6.0 - 7.0	6.0 - 7.0	6.0 - 7.0	6.0 - 7.0	5.5 - 7.0	6.0 - 7.0			6.0 - 7.0
Protein	Negative	Negative	Negative	Negative	Negative	Negative			Negative
Glucose	Negative	Negative	Negative	Negative	Negative	Negative			Negative
Ketones	Negative	Negative	Negative	Negative	Negative	Negative			Negative
Bilirubin	Negative	Negative	Negative	Negative	Negative	Negative			Negative
Blood (hemoglobin)	Negative	Negative	Negative	Negative	Negative	Negative			Negative
Nitrite	Negative	Negative	Negative	Negative	Negative	Negative			Negative
Urobilinogen	0.2 - 1 EU/dL	0.2 - 1.0 EU/dL	0.2 - 1.0 EU/dL	0.2 - 1.0 EU/dL	0.2 - 1.0 EU/dL	0.2 - 1.0 EU/dL			Normal
Specific Gravity	1.005 - 1.015	≤ 1.005 - 1.015	≤ 1.005 - 1.020	≤ 1.005 - 1.020	≤ 1.005 - 1.015	≤ 1.005 - 1.015 ⁵			1.005 - 1.015 ⁵
Leukocyte Esterase ³	Negative	Negative	Negative	Negative	Negative	Negative			Negative
Microalbumin	N/A	≤ 10 mg/L ⁴	≤ 10 mg/L ⁴	≤ 10 mg/L ⁴	N/A	N/A			N/A
Creatinine	100 - 300 mg/dL	100 - 300 mg/dL ⁴	100 - 300 mg/dL ⁴	100 - 300 mg/dL ⁴	100 - 300 mg/dL	N/A			N/A
Ascorbic Acid	N/A	N/A	N/A	N/A	N/A	N/A			Negative

PHYSICAL CHARACTERISTICS

Property	Value Range	Method
Appearance	Clear	Visual
Color	Yellow - Green	Visual
Specific Gravity	1.003 - 1.007	Refractometer (Room Temp.)
Osmolality	200 - 300 mOsm	Freezing Pt. Depression
pH	6.0 - 7.0	pH meter

ALTERNATIVE TESTS

Constituent/Method	Value Range
Glucose/Clinitest ^h (5 drop)	Negative
Bilirubin/Ictotest ^a	Negative
Ketone/Acetest ^h	Negative
Protein/Sulfosalicylic Acid (3%)	
Qualitative	Negative

MICROSCOPIC QUALITY CONTROL
CELL COUNTS ^{2,3}

Constituent	Fixed Rotor	Swing Rotor	Iris ⁱ iQ200	sedimax,UriSed,UriSed2 ^c COBIO-XS, COBIO-S120
Qualitative ^f				
Red Cells/hpf	0 - 1	0 - 1	---	0 - 3
White Cells/hpf	0 - 6	0 - 11	---	0 - 5
Quantitative ^g				
Red Cells/μL [†]	0 - 1	0 - 1	0 - 1	0 - 10
White Cells/μL [†]	0 - 11	0 - 21	0 - 3	0 - 20
Crystals***	≤ 1	≤ 1	---	---
Casts (low power)	< 1	< 1	---	---

PREGNANCY TESTING

Method	Result
Beckman Coulter ICON® 20 hCG ^e	Positive
Quidel QuickVue® hCG ^d	Positive
Siemens Clinitest® hCG ^a	Positive

Note: Other manufacturers’ methods will work and should be confirmed by the laboratory.

[†] Iris iQ200 cells/hpf.
*** Urinary artifacts may be present.

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CONSTITUENT	REAGENT TEST STRIP RESULTS ¹									
	ROCHE REAGENT STRIP ^b								77 ELEKTRONIKA REAGENT STRIP ^c	
	Combur-Test® Visual	Chemstrip® Visual	Chemstrip Criterion II™	Chemstrip® UA	URISYS 1800™	URISYS 1100™	Cobas® U 411	URISYS® 2400	HandUReader, DocUReader, DocUReader 2, LabUReader, LabUReader Plus, LabUReader Plus 2, LabUMat, LabUMat 2, Visual Reading	
pH	6 - 7	6 - 7	6 - 7	6.0 - 7.0	6 - 7	6 - 7	6 - 7	6 - 7	6 - 7	6 - 7
Protein	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
Glucose	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Ketones	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
Bilirubin	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
Blood (hemoglobin)	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
Nitrite	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
Urobilinogen	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Specific Gravity	1.005 - 1.015	1.005 - 1.015	1.000 - 1.015	1.000 - 1.015	1.005 - 1.015	1.005 - 1.015	1.005 - 1.015	1.005 - 1.015 ⁵	1.005 - 1.025	1.005 - 1.025
Leukocyte Esterase ³	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative	Negative
Microalbumin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Creatinine	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ascorbic Acid	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Negative	Negative

1. Methodology changes or variability in reagent strip lots can influence Liqua-Trol recoveries. It is recommended that the values listed here be used as guidelines until the laboratory has established its own quality control ranges.
2. The cell count ranges apply to a microscopic field viewed using a 10X wide eyepiece and a 40X objective lens. The approximate diameter of such a field under high power magnification is 0.50 mm; therefore, an appropriate correction factor should be applied when a microscope with a different field size is used in order to maintain consistency in reporting results.
3. A microscopic examination of the sedimentation is recommended in conjunction with a screening test for leukocyte esterase to detect lysed leukocytes. Testing for leukocyte esterase should not be used to replace microscopic analysis as significant and often critical pathologically diagnostic elements will go undetected.
4. Creatinine and microalbumin values are assigned with Siemens Microalbumin strips on the Clinitek 50, STATUS, and 100 only.
5. Value assigned with Normal system settings at .005 increments.

a Siemens Medical Solutions Diagnostics
b Roche Diagnostics
c 77 Elektronika KFT (For International Use Only)
d Quidel Corporation
e Beckman Coulter Inc
f Using KOVA® System with KOVA Slide II, KOVA Glasstic® Slide 10
g Using KOVA® System with KOVA Glasstic® Slide 10 with Grids
h Bayer HealthCare LLC
i Iris Diagnostics

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