LACT2

Lactate Gen.2

cobas®

Shelf life at 2-8 °C:	See expiration date on **cobas c** pack label.
On-board in use and refrigerated on the analyzer:	12 weeks

Diluent NaCl 9 %

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On-board in use and refrigerated on the analyzer:	12 weeks

Specimen collection and preparation

For specimen collection and preparation only use suitable tubes or collection containers.

Only the specimens listed below were tested and found acceptable.
Serum: **Do not use serum specimens.**
Plasma: Na-fluoride/K-oxalate and Na-fluoride/Na-heparin plasma. Centrifuge within 15 minutes of collecting the specimen.
CSF: May be used as obtained.

The sample types listed were tested with a selection of sample collection tubes that were commercially available at the time of testing, i.e. not all available tubes of all manufacturers were tested. Sample collection systems from various manufacturers may contain differing materials which could affect the test results in some cases. When processing samples in primary tubes (sample collection systems), follow the instructions of the tube manufacturer.

Centrifuge samples containing precipitates before performing the assay.

See the limitations and interferences section for details about possible sample interferences.

Sample stability claims were established by experimental data by the manufacturer or based on reference literature and only for the temperatures/time frames as stated in the method sheet. It is the responsibility of the individual laboratory to use all available references and/or its own studies to determine specific stability criteria for its laboratory.

Note

1. The lactate level increases rapidly with physical exercise. The time required for return to normal lactate values depends on the physical fitness of the subject. 30 minutes at rest is usually sufficient for this purpose.
2. Blood samples should be drawn from a stasis-free vein. However, minimal hemostasis (less than 30 seconds) will not affect lactate levels. Avoid the use of a tourniquet, if possible.[5]
3. Glycolysis in blood samples can rapidly increase lactate levels. Cells contribute to the glycolysis and their quick removal is essential for accurate lactate analysis.[6] Heparinized plasma is acceptable, but precautions must be taken to retard glycolysis by keeping the whole blood on ice and then separating the plasma from the cells within 15 minutes of collection.

Stability in plasma (separated):[7]	8 hours at 15-25 °C
	14 days at 2-8 °C
Stability in plasma (heparinized):[8]	38 days at -20 °C
Stability in CSF:[9]	3 hours at 15-25 °C
	24 hours at 2-8 °C
	2 months at (-15)-(-25) °C

Materials provided

See "Reagents – working solutions" section for reagents.

Materials required (but not provided)

- See "Order information" section
- General laboratory equipment

Assay

For optimum performance of the assay follow the directions given in this document for the analyzer concerned. Refer to the appropriate operator's manual for analyzer-specific assay instructions.

The performance of applications not validated by Roche is not warranted and must be defined by the user.

Application for plasma and CSF

cobas c 311 test definition

Assay type	2-Point End		
Reaction time / Assay points	10 / 6-31 (STAT 7 / 6-31)		
Wavelength (sub/main)	700/660 nm		
Reaction direction	Increase		
Units	mmol/L (mg/dL, mg/L)		
Reagent pipetting		Diluent (H_2O)	
R1	125 µL	20 µL	
R2	25 µL	20 µL	
Sample volumes	*Sample*	*Sample dilution*	
		Sample	*Diluent (NaCl)*
Normal	2 µL	-	-
Decreased	2 µL	15 µL	135 µL
Increased	2 µL	-	-

cobas c 501 test definition

Assay type	2-Point End		
Reaction time / Assay points	10 / 10-47 (STAT 7 / 10-47)		
Wavelength (sub/main)	700/660 nm		
Reaction direction	Increase		
Units	mmol/L (mg/dL, mg/L)		
Reagent pipetting		Diluent (H_2O)	
R1	125 µL	20 µL	
R2	25 µL	20 µL	
Sample volumes	*Sample*	*Sample dilution*	
		Sample	*Diluent (NaCl)*
Normal	2 µL	-	-
Decreased	2 µL	15 µL	135 µL
Increased	2 µL	-	-

cobas c 502 test definition

Assay type	2-Point End		
Reaction time / Assay points	10 / 10-47 (STAT 7 / 10-47)		
Wavelength (sub/main)	700/660 nm		
Reaction direction	Increase		
Units	mmol/L (mg/dL, mg/L)		
Reagent pipetting		Diluent (H_2O)	
R1	125 µL	20 µL	
R2	25 µL	20 µL	
Sample volumes	*Sample*	*Sample dilution*	
		Sample	*Diluent (NaCl)*
Normal	2 µL	-	-
Decreased	2 µL	15 µL	135 µL
Increased	4 µL	-	-

Calibration

Calibrators	S1: H_2O
	S2: C.f.a.s.