ALBUMIN

Spectrophotometric
BROMOCRESOL GREEN

Instrument: MEGA

Principle of the method

Albumin in the sample reacts with bromocresol green in acid medium forming a coloured complex that can be measured by spectrophotometry.

Samples

Serum.
Stable for 3 days at 2-8ºC.

Reagent preparation

Reagent is ready to be used

Performance characteristics

- Interferences: Hemoglobin (1 g/L) and bilirubin (25 mg/dL) interfere.
- Linearity: Up to 70 g/L.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**35 / 50**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 70**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**g/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**3.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**3.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**628 / 700**
Calibration refer	
Test read interval	**30 – 36**
Blank red interval	**0 – 0**
Absorbance window	**0.0 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**3.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**300**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

UREA/BUN

Enzymatic-spectrophotometric
ULTRAVIOLET

Instrument: MEGA

Principle of the method

Urea in the sample consumes, by means of some coupled reactions, NADH that can be measured by spectrophotometry.

Samples

Serum, plasma, urine.
Stable for 7 days at 2-8ºC.
Heparin is recommended as anticoagulant.

Reagent preparation

Working Reagent: Transfer the contents of one Reagent B vial into a Reagent A bottle. Mix thoroughly.
Stable for 2 months at 2-8ºC.

Performance characteristics

- Linearity: up to 225 mg/dL.
- Interferences: Ammonium salts of the anticoagulants interfere.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**10 / 50**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 300**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*****	**0**		**3.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*****			**3.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**2-Points**
Up/Down	**Down**
Sample blank Test	
Main/Sub W.L. (nm)	**340 / 380**
Calibration refer	
Test read interval	**15 – 30**
Blank red interval	**0 – 0**
Absorbance window	**1.1 / 2.0**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**3.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**300**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

TRIGLYCERIDES

Enzymatic-spectrophotometric
GLYCEROL PHOSPHATE OXIDASE/PEROXIDASE

Instrument: MEGA

Principle of the method

Triglycerides in the sample originates, by means of some coupled reactions, a coloured complex that can be measured by spectrophotometry.

Samples

Serum or plasma.
Stable for 5 days at 2-8ºC.
Heparin, EDTA, oxalate and fluoride may be used as anticoagulants.

Reagent preparation

Reagent is ready to be used.

Performance characteristics

- Interferences: Hemoglobin (10 g/L) does not interfere. Bilirubin (2.5 mg/dL) may intefere. Other drugs and substances may interfere.
- Linearity: Up to 600 mg/dL.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**< 200**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 600**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**3.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**3.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**500 / 628**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**0 – 0**
Absorbance window	**0.0 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**3.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**300**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

Version 0404

PROTEIN

Spectrophotometric
BIURET

Instrument: MEGA

Principle of the method

Protein in the sample reacts with copper (II) ion in alkaline medium forming a coloured complex that can be measured by spectrophotometry.

Samples

Serum, heparinized plasma.
Stable for 8 days at 2-8ºC.
Anticoagulants other than heparin should not be used.

Reagent preparation

Reagent is ready to be used.

Performance characteristics

- Interferences: Hemoglobin (0.2 g/L) and bilirubin (15 mg/dL) interfere. Moderate lipemia does not affect the results.
- Linearity: Up to 150 g/L.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**65 / 80**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 150**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**g/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**5.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**5.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**548 / 748**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**0 – 0**
Absorbance window	**0.0 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**5.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**250**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

MAGNESIUM

Spectrophotometric
CALMAGITE

Instrument: MEGA

Principle of the method

Magnesium in the sample reacts with calmagite in alkaline medium forming a coloured complex that can be measured by spectrophotometry. EGTA is included in the reagent to remove calcium interference.

Samples

Serum, heparinized plasma.
Magnesium in serum or plasma is stable for 10 days at 2-8ºC.
Anticoagulants other than heparin should not be used.

Reagent preparation

Reagent is ready to use.

Performance characteristics

- Interferences: Hemoglobin (1.5 g/L), calcium (20 mg/dL) and bilirubin (20 mg/dL) do not interfere.
- Linearity: Up to 4 mg/dL.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**1.80 / 2.10**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 4.00**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**2**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**3.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**3.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**500 / 748**
Calibration refer	
Test read interval	**40 – 48**
Blank red interval	**0 – 0**
Absorbance window	**0.0 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**3.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**300**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

LIPASE

Continuous-spectrophotometric

Instrument: MEGA

Principle of the method

Lipase catalyzes the hydrolysis of diglyceride to monoglyceride and fatty acid. The catalytic concentration is determined from the rate of quinoneimine formation, measured at 550 nm, by means of the monoglyceride lipase (MGL), glycerol kinase, glycerol phosphate oxidase (GPO) and peroxidase coupled reactions.

Samples

Serum.
Lipase in serum is stable for 5 days at 2-8ºC.

Reagent preparation

Reagent 1: Reconstitute the contents of a Reagent B vial with 10 mL of Reagent A. Swirl gently. Stable for 28 days at 2-8ºC.
Reagent 2: Use the Reagent C.

Performance characteristics

- Linearity: up to 500 U/L.
- Interferences: Bilirubin (20 mg/dL) and glycerol (100 mg/dL) do not interfere.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**7 / 59 (37ºC)**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 500**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**U/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*****	**0**		**5.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**Rate (L.R.)**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**548 / 604**
Calibration refer	
Test read interval	**52 – 69**
Blank red interval	**0 – 0**
Absorbance window	**0.0 / 1.1**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. per sample		**1**	
Sample Vol./Dil. Vol.		**4.8 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**240**	**0**
Reagent 2	**...**	**80**	**0**
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

LACTATE DEHYDROGENASE (LDH)

Continuous-spectrophotometric
PYRUVATE

Instrument: MEGA

Principle of the method

Lactate dehydrognase (LD or LDH) catalyzes the reduction of pyruvate by NADH, to form lactate and NAD^+. The catalytic concentration is determined from the rate of decrease of NADH, measured at 340 nm.

Samples

Serum or plasma.
Lactate dehydrogenase in serum or plasma is stable for 24 hours at 2-8ºC.
Heparin may be used as anticoagulant.

Reagent preparation

Working Reagent: Pour the contents of the Reagent B into the Reagent A bottle. Mix gently.
Stable for 2 months at 2-8ºC.

Performance characteristics

- Interferences: Hemolysis interferes due to the high lactate dehydrogenase concentration in red cells.
- Linearity: Up to 1500 U/L.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**207 / 414 (37ºC)**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 1250**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**U/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor **12104**

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*****	**0**		**5.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**Rate (L.R.)**
Up/Down	**Down**
Sample blank Test	
Main/Sub W.L. (nm)	**340 / 380**
Calibration refer	
Test read interval	**21 – 68**
Blank red interval	**0 – 0**
Absorbance window	**0.8 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Factor**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**5.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**300**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

IRON

Spectrophotometric
FERROZINE

Instrument: MEGA

Principle of the method

Transferrin-bound ferric ions in the sample are released by guanidinium and reduced to ferrous by means of hydroxylamine. Ferrous ions react with ferrozine forming a coloured complex that can be measured by spectrophotometry.

Samples

Serum or heparinized plasma.
Stable for 7 days at 2-8ºC.

Reagent preparation

Reagent 1: use the Reagent A.
Reagent 2: use the Reagent B.

Performance characteristics

- Linearity: up to 1000 µg/dL.
- Interferences: Do not use hemolyzed sera.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**55 / 155**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 1000**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**40.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**40.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**550 / 660**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**0 – 0**
Absorbance window	**-0.100 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**40.0 / 0.0**	
Rerun/Dil. Vol.		**20.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**200**	**0**
Reagent 2		**50**	
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

Version 0312

IRON

Spectrophotometric
CHROMAZUROL B

Instrument: MEGA

Principle of the method

Ferric ions in the sample react with chromazurol B and cetyltrimethylamoniumbromide (CTAB) forming a coloured complex that can be measured by spectrophotometry.

Samples

Serum or heparinized plasma.
Stable for 7 days at 2-8ºC.

Reagent preparation

Reagent is ready to be used.

Performance characteristics

- Linearity: up to 500 µg/dL.
- Interferences: Do not use hemolyzed sera.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**55 / 155**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 500**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**15.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**15.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**628 / 748**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**0 – 0**
Absorbance window	**0.0 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**15.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**300**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

HDL CHOLESTEROL

Precipitation/Enzymatic-spectrophotometric
PHOSPHOTUNGSTATE/Mg^{2+}-CHOLESTEROL OXIDASE/PEROXIDASE

Instrument: MEGA

Principle of the method

Very low density lipoproteins (VLDL) and low density lipoproteins (LDL) in the sample precipitate with phosphotungstate and magnesium ions. The supernatant contains high density lipoproteins (HDL). The HDL cholesterol is then spectrophotometrically measured by means of some coupled reactions.

Samples

Serum or plasma. Stable for 7 days at 2-8ºC.
Heparin, EDTA, oxalate and fluoride may be used as anticoagulants.

Precipitation Procedure:

1. Pipette into labelled centrifuge tubes:
   - Sample 0.2 mL
   - Reagent A 0.5 mL
2. Mix thoroughly and let stand for 10 minutes at room temperature.
3. Centrifuge at a minimum of 4000 r.p.m. for 10 minutes.
4. Carefully collect the supernatant.

Reagent preparation

Reagent B is ready to be used.

Performance characteristics

- Linearity: up to 200 mg/dL.
- Interferences: Hemoglobin (1 g/L), bilirubin (10 mg/d/L) and acid ascorbic (0.1 mmol/L) interfere.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**30 / 70**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 150**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**15.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**15.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**500 / 628**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**0 – 0**
Absorbance window	**0.0 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**15.0 / 0.0**	
Rerun/Dil. Vol.		**5.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**300**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator *** assigned value**

GLUCOSE

Enzymatic-spectrophotometric
GLUCOSE OXIDASE/PEROXIDASE

Instrument: MEGA

Principle of the method

Glucose in the sample originates, by means of some coupled reactions, a coloured complex that can be measured by spectrophotometry.

Samples

Serum, plasma.
Stable for 7 days at 2-8ºC.
Heparin, EDTA, oxalate and fluoride may be used as anticoagulants.

Reagent preparation

Reagent is ready to be used.

Performance characteristics

- Linearity: up to 500 mg/dL.
- Interferences: Hemoglobin (0.3 g/L), bilirubin (15 mg/dL) and ascorbic acid (10 mg/dL) do not interfere. Moderate lipemia does not affect the results.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**76 / 110**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 500**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**3.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**3.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**500 / 628**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**0 – 0**
Absorbance window	**0.0 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**3.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**300**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

GAMMA-GLUTAMYLTRANSFERASE (g-GT)

Continuous-spectrophotometric
IFCC

Instrument: MEGA

Principle of the method

Gamma-glutamyltansferase (γ-GT) catalyzes the transfer of the γ-glutamyl group from γ-glutamyl-3-carboxy-4-nitroanilide to glycylglycine, liberating 3-carboxy-4-nitroaniline. The catalytic concentration is determined from the rate of 3-carboxy-4-nitroaniline formation.

Samples

Serum.
Gamma-glutamyltransferase in serum is stable for 5 days at 2-8 ºC.

Reagent preparation

Working Reagent: Pour the contents of the Reagent B into the Reagent A bottle. Mix gently.
Stable for 2 months at 2-8 ºC.

Performance characteristics

- Linearity: up to 300 U/L.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**10 / 60 (37ºC)**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 300**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**U/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor **2778**

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*****	**0**		**12.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**Rate (L.R.)**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**404 / 476**
Calibration refer	
Test read interval	**13 – 66**
Blank red interval	**0 – 0**
Absorbance window	**-0.1 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 0**
Type	**Factor**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**12.0 / 0.0**	
Rerun/Dil. Vol.		**6.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**240**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

Version 0312

CREATININE

Kinetic-spectrophotometric
ALKALINE PICRATE

Instrument: MEGA

Principle of the method

Creatinine in the sample reacts with picrate in alkaline medium forming a coloured complex. The complex formation rate is measured in a short period to avoid interferences.

Samples

Serum, plasma, urine.
Creatinine in serum or plasma is stable for 24 hours at 2-8ºC.
Heparin , EDTA, oxalate and fluoride may be used as anticoagulants.

Reagent preparation

Working Reagent: Mix equal volumes of Reagent A and Reagent B. Mix thoroughly.
Stable for 2 months at 2-8ºC.

Performance characteristics

- Linearity: up to 20 mg/dL.
- Interferences: Hemoglobin (0.1 g/L), bilirubin (10 mg/dL, protein and ketonic bodies do not interfere.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**0.5 / 1.10**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 20**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**2**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**20.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**20.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**2-Points**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**500 / 572**
Calibration refer	
Test read interval	**13 – 25**
Blank red interval	**0 – 0**
Absorbance window	**0.0 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**20.0 / 0.0**	
Rerun/Dil. Vol.		**10.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**250**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

Version 0311

CREATINE KINASE-MB (CK-MB)

Immunoinhibition

Instrument: MEGA

Principle of the method

A specific antibody inhibits both M subunits of CK-MM (CK-3), and the single M subunit of CK-MB (CK-2) and thus allow determination of the B subunit of CK-MB (assuming the absence of CK-BB or CK-1). CK-B catalytic concentration, which corresponds to half of CK-MB concentration, is determined from the rate of NADPH formation, measured at 340 nm, by means of the hexokinase (HK) and glucose-6-phosphate dehydrogenase (G6P-DH) coupled reactions.

Samples

Serum.
CK-MB in serum is stable for 7 days at 2-8ºC.

Reagent preparation

Working Reagent: Reconstitute the contents of a Reagent B vial with 2.5 mL (if 20x2.5 mL size) or 10 mL (if 10x10 mL size) of Reagent A. Mix gently.
Stable for 15 days at 2-8ºC.

Performance characteristics

- Linearity: up to 330 U/L.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**0 / 24 (37ºC)**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 330**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**U/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor **13350**

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*****	**0**		**10.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**Rate (L.R.)**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**340**
Calibration refer	
Test read interval	**66 – 134**
Blank red interval	**0 – 0**
Absorbance window	**-0.1 / 2.0**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**1 / 0**
Type	**Factor**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**10.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**250**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Main**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

CREATINE KINASE (CK)

Continuous-spectrophotometric
IFCC

Instrument: MEGA

Principle of the method

Creatine kinase (CK) catalyzes the phosphorylation of ADP, in the presence of creatine phosphate, to form ATP and creatine. The catalytic concentration is determined from the rate of NADPH formation, measured at 340 nm, by means of the hexokinase (HK) and glucose-6-phosphate dehydrogenase (G6P-DH) coupled reactions.

Samples

Serum.
Creatine kinase in serum is stable for 7 days at 2-8ºC.

Reagent preparation

Working Reagent: Reconstitute the contents of a Reagent B vial with 2.5 mL (if 20 x 2.5 mL size) or 15 mL (if 10 x 15 mL size) of Reagent A. Swirl gently. Stable for 15 days at 2-8ºC.

Performance characteristics

- Linearity: up to 900 U/L.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**24 / 195 (37ºC)**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 900**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**U/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor **5159**

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*****	**0**		**10.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**Rate (L.R.)**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**340 / 380**
Calibration refer	
Test read interval	**28 – 69**
Blank red interval	**0 – 0**
Absorbance window	**0.0 / 1.1**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 0**
Type	**Factor**

Sample

Determin. Per sample	**1**
Sample Vol./Dil. Vol.	**10.0 / 0.0**
Rerun/Dil. Vol.	**5.0 / 0.0**

Reagent	ID	Vol.	H2O
Reagent 1	**...**	**250**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

CHOLESTEROL

Enzymatic-spectrophotometric
CHOLESTEROL OXIDASE/PEROXIDASE

Instrument: MEGA

Principle of the method

Free and esterified cholesterol in the sample originates, by means of some coupled reactions, a coloured complex that can be measured by spectrophotometry.

Samples

Serum, plasma.
Stable for 7 days at 2-8ºC.
Heparin, EDTA, oxalate and fluoride may be used as anticoagulants.

Reagent preparation

Reagent is ready to be used.

Performance characteristics

- Linearity: up to 1000 mg/dL.
- Interferences: Hemoglobin (3 g/L), bilirubin (0.25 mmol/L) and ascorbic acid interfere. Lipemia does not affect results.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**< 200**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 1000**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**3.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**3.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**500 / 628**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**0 – 0**
Absorbance window	**0.0 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**3.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**300**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

CALCIUM

Spectrophotometric
METHYLTHYMOL BLUE

Instrument: MEGA

Principle of the method

Calcium in the sample reacts with methylthymol blue in alkaline medium forming a coloured complex that can be measured by spectrophotometry. Hydroxyquinoleine is included in the reagent to remove magnesium interference.

Samples

Serum, heparinized plasma, urine.
Calcium in serum or plasma is stable for 10 days at 2-8ºC.
Anticoagulants other than heparin should not be used.

Reagent preparation

Working Reagent: Mix equal volumes of Reagent A and Reagent B. Mix thoroughly.
Stable for 2 days at 2-8ºC.

Performance characteristics

- Linearity: up to 15 mg/dL.
- Interferences: Hemoglobin (1.5 g/L), magnesium (10 mg/dL), phosphate (20 mg/dL) and bilirubin (20 mg/dL) do not interfere.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**9.0 / 10.7**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0.0 / 15.0**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**1**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**3.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**3.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**628 / 748**
Calibration refer	
Test read interval	**40 – 48**
Blank red interval	**0 – 0**
Absorbance window	**0.0 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**3.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**300**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

BILIRUBIN (TOTAL)

Spectrophotometric
DIAZOTIZED SULFANILIC

Instrument: MEGA

Principle of the method

Total bilirubin in the sample reacts with diazotized sulfanilic in acid medium forming a coloured complex that can be measured by spectrophotometry. Both direct (conjugated with glucuronate) and indirect (unconjugated) bilirubin couple with diazo in the presence of cetrimide. The terms "direct" and "total" refer to the reaction characteristics of serum bilirubin in the absence or presence of solubilizing (accelerating) reagents, and are only approximately equivalent to the conjugated and unconjugated fractions.

Samples

Serum.
Stable for 2 days at 2-8ºC and protected from light.

Reagent preparation

Reagent 1: Use the Reagent A-T.
Reagent 2: Use the Reagent B.

Performance characteristics

- Linearity: up to 15 mg/dL.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**0.00 / 1.10**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 15**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**2**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**10.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**10.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**550 / 660**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**0 – 0**
Absorbance window	**-0.100 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**25.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**200**	**0**
Reagent 2		**50**	
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

ASPARTATE AMINOTRANSFERASE (AST/GOT)

Continuous-spectrophotometric
IFCC

Instrument: MEGA

Principle of the method

Aspartate aminotransferase (AST or GOT) catalyzes the transfer of the amino group from aspartate to 2-oxoglutarate, forming oxalacetate and glutamate. The catalytic concentration is determined from the rate of decrease of NADH, measured at 340 nm, by means of the malate dehydrogenase (MDH) coupled reaction.

Samples

Serum.
Aspartate aminotansferase in serum is stable for 7 days at 2-8ºC.

Reagent preparation

Reagent 1: Use the Reagent A.
Reagent 2: Use the Reagent B.

Performance characteristics

- Linearity: up to 500 U/L.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**0 / 42 (37ºC)**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 500**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**U/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor **4166**

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*****	**0**		**12.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**Rate (L.R.)**
Up/Down	**Down**
Sample blank Test	
Main/Sub W.L. (nm)	**340 / 380**
Calibration refer	
Test read interval	**92 – 118**
Blank red interval	**0 – 0**
Absorbance window	**0.8 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 0**
Type	**Factor**

... Data entered by the operator

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**12.0 / 0.0**	
Rerun/Dil. Vol.		**6.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**192**	**0**
Reagent 2	**...**	**48**	**0**
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

*** assigned value**

ASPARTATE AMINOTRANSFERASE (AST)

Continuous-spectrophotometric
IFCC

Instrument: MEGA

Principle of the method

Aspartate aminotransferase (AST or GOT) catalyzes the transfer of the amino group from aspartate to 2-oxoglutarate, forming oxalacetate and glutamate. The catalytic concentration is determined from the rate of decrease of NADH, measured at 340 nm, by means of the malate dehydrogenase (MDH) coupled reaction.

Samples

Serum.
Aspartate aminotransferase in serum is stable for 7 days at 2-8ºC.

Reagent preparation

Working Reagent: Pour the contents of the Reagent B into the Reagent A bottle. Mix gently.
Stable for 2 months at 2-8ºC.

Performance characteristics

- Interferences: High pyruvate in the sample will consume NADH during the delay time before measurements, reducing the linearity of the method.
- Linearity: Up to 500 U/L.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**0 / 42 (37ºC)**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 500**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**U/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor	**4166**

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*****	**0**		**12.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**Rate (L.R.)**
Up/Down	**Down**
Sample blank Test	
Main/Sub W.L. (nm)	**340 / 380**
Calibration refer	
Test read interval	**21 – 68**
Blank red interval	**0 – 0**
Absorbance window	**0.8 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 0**
Type	**Factor**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**12.0 / 0.0**	
Rerun/Dil. Vol.		**6.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**240**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

a-AMYLASE

Continuous-spectrophotometric
IFCC

Instrument: MEGA

Principle of the method

α-Amylase catalyzes the hydrolysis of 4-nitrophenyl-maltoheptaoside-ethylidene to smaller oligosacharides which are hydrolyzed by α-glucosidase liberating 4-nitrophenol. The catalytic concentration is determined from the rate of 4-nitrophenol formation, measured at 405 nm.

Samples

Serum, plasma, urine.

α-Amylase in serum or plasma is stable for 1 month at 2-8ºC. Use heparin or EDTA as anticoagulant.

α-Amylase in urine is stable for 1 month at 2-8ºC if pH is adjusted to approximately 7 before storage.

Reagent preparation

Working Reagent: Pour the contents of the Reagent B into the Reagent A bottle. Mix gently. Other volumes can be prepared in the proportion: 4 mL Reagent A + 1 mL Reagent B.

Stable for 20 days at 2-8ºC.

Performance characteristics

- Linearity: up to 1300 U/L (serum) or 2600 U/L (urine).
- Interferences: Lipemia (triglycerides 10 g/L) and blirubin (20 mg/dL) do not interfere. Hemoglobin (10 g/L) interfere. Other drugs and substances may interfere.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**28 / 100 (37ºC)**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 1300**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**U/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor **4049**

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*****	**0**		**7.5**		**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**Rate (L.R.)**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**404 / 476**
Calibration refer	
Test read interval	**21 – 68**
Blank read interval	**0 – 0**
Absorbance window	**0.0 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 0**
Type	**Factor**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**7.5 / 0.0**	
Rerun/Dil. Vol.		**5.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**250**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

ALANINE AMINOTRANSFERASE (ALT/GPT)

Continuous-spectrophotometric
IFCC

Instrument: MEGA

Principle of the method

Alanine aminotransferase (ALT or GPT) catalyzes the transfer of the amino group from alanine to 2-oxoglutarate, forming pyruvate and glutamate. The catalytic concentration is determined from the rate of decrease of NADH, measured at 340 nm, by means of the lactate dehydrogenase (LDH) coupled reaction.

Samples

Serum.
Alanine aminotansferase in serum is stable for 7 days at 2-8ºC.

Reagent preparation

Reagent 1: Use the Reagent A.
Reagent 2: Use the Reagent B.

Performance characteristics

- Linearity: up to 500 U/L.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**0 / 41 (37ºC)**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 500**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**U/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor **4166**

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*****	**0**		**12.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**Rate (L.R.)**
Up/Down	**Down**
Sample blank Test	
Main/Sub W.L. (nm)	**340 / 380**
Calibration refer	
Test read interval	**92 – 118**
Blank red interval	**0 – 0**
Absorbance window	**0.8 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 0**
Type	**Factor**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**12.0 / 0.0**	
Rerun/Dil. Vol.		**6.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**192**	**0**
Reagent 2	**...**	**48**	**0**
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

Version 0312

ALANINE AMINOTRANSFERASE (ALT/GPT)

Continuous-spectrophotometric
IFCC

Instrument: MEGA

Principle of the method

Alanine aminotransferase (ALT or GPT) catalyzes the transfer of the amino group from alanine to 2-oxoglutarate, forming pyruvate and glutamate. The catalytic concentration is determined from the rate of decrease of NADH, measured at 340 nm, by means of the lactate dehydrogenase (LDH) coupled reaction.

Samples

Serum.
Alanine aminotransferase in serum is stable for 7 days at 2-8ºC.

Reagent preparation

Working Reagent: Pour the contents of the Reagent B into the Reagent A bottle. Mix gently.
Stable for 2 months at 2-8ºC.

Performance characteristics

- Linearity: up to 500 U/L.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**0 / 41 (37ºC)**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 500**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**U/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor **4166**

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*****	**0**		**12.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay		**Sample**			
Measuring mode	**Rate (L.R.)**	Determin. Per sample		**1**	
Up/Down	**Down**	Sample Vol./Dil. Vol.		**12.0 / 0.0**	
Sample blank Test		Rerun/Dil. Vol.		**6.0 / 0.0**	
Main/Sub W.L. (nm)	**340 / 380**	Reagent	ID	Vol.	H2O
Calibration refer		**Reagent 1**	**...**	**240**	**0**
Test read interval	**21 – 68**	Reagent 2			
Blank red interval	**0 – 0**	Diluent			
Absorbance window	**0.8 / 2.5**	Rerun Diluent			
Max. Rate limit (%)	**0**				
Calibration		**Reaction check**			
Blank/Cal. – determin.	**3 / 0**	Endpoint check (Abs.)		**0.000**	
Type	**Factor**	Multiple determ. Range		**0**	
		Mono/Bi-chromatic		**Test**	
		Ratio/Differ check		**Differ**	
		End/Rate		**End**	
		Test read interval 1		**0 – 0**	
		Test read interval 2		**0 – 0**	
		Check limits L/H		**0 / 0**	

... Data entered by the operator

*** assigned value**

Version 0312

ALKALINE PHOSPHATASE (ALP)

Continuous-spectrophotometric
AMP BUFFER (IFCC)

Instrument: MEGA

Principle of the method

Alkaline phosphatase (ALP) catalyzes in alkaline medium the transfer of the phosphate group from 4-nitrophenylphosphate to 2-amino-2-methyl-1-propanol (AMP), liberating 4-nitrophenol. The catalytic concentration is determined from the rate of 4-nitrophenol formation, measured at 405 nm.

Samples

Serum, plasma.
Alkaline phosphatase in serum or plasma is stable for 7 days at 2-8ºC.
Heparin may be used as anticoagulant.

Reagent preparation

Working Reagent: Dissolve the powder of a Reagent B vial with 20 mL of the Reagent A bottle (if 10x20 mL size) or dissolve the contents of a Reagent B vial with the entire volume of a Reagent A bottle (if 5x100 mL size).
Stable for 2 months at 2-8ºC.

Performance characteristics

- Linearity: up to 1200 U/L.
- Interferences: Fluoride, oxalate, citrate and EDTA as anticoagulants interfere. Hemolysis interferes due to the alakline phosphatase content in red cells.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**26 / 117 (37ºC)**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 1200**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**U/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor **3455**

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*****	**0**		**5.0**		**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**Rate (L.R.)**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**404 / 476**
Calibration refer	
Test read interval	**21 – 68**
Blank read interval	**0 – 0**
Absorbance window	**0.0 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 0**
Type	**Factor**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**5.0 / 0.0**	
Rerun/Dil. Vol.		**3.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**250**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

URIC ACID

Enzymatic-spectrophotometric
URICASE/PEROXIDASE

Instrument: MEGA

Principle of the method

Uric acid in the sample originates, by means of some coupled reactions, a coloured complex that can be measured by spectrophotometry.

Samples

Serum, heparinized plasma.
Magnesium in serum or plasma is stable for 10 days at 2-8ºC.
Anticoagulants other than heparin should not be used.

Reagent preparation

Reagent is ready to be used.

Performance characteristics

- Interferences: Hemoglobin (1 g/L), ascorbic acid (0.3 mmol/L) and bilirubin (15 mg/dL) do not interfere. Lipemia may affect the results
- Linearity: Up to 25 mg/dL.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**2.4 / 7.0**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 25.0**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**1**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**6.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**6.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**524 / 628**
Calibration refer	
Test read interval	**60 – 68**
Blank red interval	**0 – 0**
Absorbance window	**0.0 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**3 / 3**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**6.0 / 0.0**	
Rerun/Dil. Vol.		**3.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**240**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Test**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

Version 0311

IMMUNOGLOBULIN M (IgM)

Turbidimetry

Instrument: MEGA

Principle of the method

Immunoglobulin M in the sample precipitates in the presence of anti-human immunoglobulin M antibodies. The light scattering of the antigen-antibody complexes is proportional to the immunoglobulin M concentration and can be measured by turbidimetry.

Samples

Serum or plasma treated with heparin or EDTA.
Stable for 7 days at 2-8ºC.
Hemolyzed or lipemic samples are not suitable for testing.

Reagent preparation

Reagent is ready to use.

Performance characteristics

- Due to the zone effect, falsely low values will be obtained when IgM is present in the sample at a concentration higher than 600 mg/dL.
- Measurement interval (approximate value dependent on the highest standard concentration): 1-300 mg/dL

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**40 / 230**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 300**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**3.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**3.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**340 / 700**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**61 – 69**
Absorbance window	**-0.100 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**2 / 2**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**3.0 / 0.0**	
Rerun/Dil. Vol.		**3.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**200**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Main**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

IMMUNOGLOBULIN G

Turbidimetry

Instrument: MEGA

Principle of the method

Immunoglobulin G in the sample precipitates in the presence of anti-human immunoglobulin G antibodies. The light scattering of the antigen-antibody complexes is proportional to the immunoglobulin G concentration and can be measured by turbidimetry.

Samples

Serum or plasma treated with heparin or EDTA.
Stable for 7 days at 2-8ºC.
Hemolyzed or lipemic samples are not suitable for testing.

Reagent preparation

Reagent is ready to use.

Performance characteristics

- Due to the zone effect, falsely low values will be obtained when IgG is present in the sample at a concentration higher than 8000 mg/dL.
- Measurement interval (approximate value dependent on the highest standard concentration): 0.2-3500 mg/dL.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**700 / 1600**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**2 / 3500**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**2.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**2.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**550 / 780**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**61 – 69**
Absorbance window	**-0.100 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**2 / 2**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**2.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**300**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Main**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

IMMUNOGLOBULIN A

Turbidimetry

Instrument: MEGA

Principle of the method

Immunoglobulin A in the sample precipitates in the presence of anti-human immunoglobulin A antibodies. The light scattering of the antigen-antibody complexes is proportional to the immunoglobulin A concentration and can be measured by turbidimetry.

Samples

Serum or plasma treated with heparin or EDTA.
Stable 7 days at 2-8 ºC.
Hemolyzed or lipemic samples are not suitable for testing.

Reagent preparation

Reagent is ready to use.

Performance characteristics

- Measurement interval (approximate value dependent on the highest standard concentration): 3.7-550 mg/dL
- Due to the zone effect, falsely low values will be obtained when IgA is present in the sample at a concentration higher than 1300 mg/dL.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**70 / 400**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**3.7 / 550**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**mg/dL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**2.5**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**2.5**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**340 / 780**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**61 – 69**
Absorbance window	**-0.100 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**2 / 2**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**2.5 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**300**	**0**
Reagent 2			
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Main**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

C-REACTIVE PROTEIN (CRP)

Turbidimetry
LATEX

Instrument: MEGA

Principle of the method

Serum C-reactive protein (CRP) causes agglutination of the latex particles coated with anti-human C-reactive protein. The agglutination of the latex particles is proportional to the CRP concentration and can be measured by turbidimetry.

Samples

Serum. Stable for 7 days at 2-8 ºC.
Hemolyzed or lipemic samples are not suitable for testing.

Reagent preparation

Reagent 1: Use the Diluent
Reagent 2: Use the Latex

Performance characteristics

- Linearity: up to 150 mg/L.
- This method has not zone effect.
- Interferences: Rheumatoid factors, up to 200 IU/mL do not interfere.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**0.0 / 5.0**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 150**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**1**	Unit	**mg/L**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**3.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**3.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**540 / 700**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**61 – 69**
Absorbance window	**-0.100 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**2 / 2**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**3.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**200**	**0**
Reagent 2		**50**	
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Main**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

ANTI-STREPTOLYSIN O (ASO)

Turbidimetry
LATEX

Instrument: MEGA

Principle of the method

Serum anti-streptolysin O (ASO) causes agglutination of latex particles coated with streptolysin O. The agglutination of the latex particles is proportional to the streptolysin O concentration and can be measured by turbidimetry.

Samples

Serum.
Stable for 7 days at 2-8 ºC.
Hemolyzed or lipemic samples are not suitable for testing..

Reagent preparation

Reagent 1: Use the Diluent
Reagent 2: Use the Latex

Performance characteristics

- Zone effect: falsely low values are obtained when ASO is present in the sample at a concentration higher than 4000 IU/mL.
- Linearity limit: 800 IU/mL ASO
- Detection limit: 3 IU/mL ASO

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**0 / 200**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**0 / 800**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**0**	Unit	**IU/mL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**3.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**3.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**540 / 700**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**0 - 0**
Absorbance window	**-0.100 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**2 / 2**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**3.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**200**	**0**
Reagent 2		**50**	
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Main**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**

RHEUMATOID FACTORS (RF)

Turbidimetry
LATEX

Instrument: MEGA

Principle of the method

Rheumatoid factors (RF) causes agglutination of the latex particles coated with human gamma-globulin. The agglutination of the latex particles is proportional to the RF concentration and can be measured by turbidimetry.

Samples

Serum. Stable for 7 days at 2-8ºC.
Hemolyzed or lipemic samples are not suitable for testing.

Reagent preparation

Reagent 1: Use the Diluent.
Reagent 2: Use the Latex.

Performance characteristics

- Measurement interval: 2-120 IU/mL
- This method has not zone effect up to 800 IU/mL.

Instrument settings

PHOTOMETRIC

Report

Normal Range L/H	**0.0 / 30.0**	Slope(%)/Intercept A	**100 / 0**
Meas. Range L/H	**2.0 / 120**	Slope(%)/Intercept B	**100 / 0**
Decimal point loc.	**1**	Unit	**U/mL**
Absorbance Window	**0 / 0**		

Calibrators

Factor

Calibrator Name	Conc.	Abs/Act.	Factor	S.V.	Dil-Sample	Limits	L/H
C 0 ...	*	**0**		**3.0**	**0.0**	**0.0 / ...**	**0**
C 1 Calibra 1	*			**3.0**	**0.0**	**0.0 / ...**	**0**

PHOTOMETRIC TEST

Assay

Measuring mode	**End**
Up/Down	**Up**
Sample blank Test	
Main/Sub W.L. (nm)	**660 / 780**
Calibration refer	
Test read interval	**126 – 134**
Blank red interval	**61 – 69**
Absorbance window	**-0.100 / 2.5**
Max. Rate limit (%)	**0**

Calibration

Blank/Cal. – determin.	**2 / 2**
Type	**Linear**

Sample

Determin. Per sample		**1**	
Sample Vol./Dil. Vol.		**3.0 / 0.0**	
Rerun/Dil. Vol.		**2.0 / 0.0**	
Reagent	ID	Vol.	H2O
Reagent 1	**...**	**240**	**0**
Reagent 2		**60**	
Diluent			
Rerun Diluent			

Reaction check

Endpoint check (Abs.)	**0.000**
Multiple determ. Range	**0**
Mono/Bi-chromatic	**Main**
Ratio/Differ check	**Differ**
End/Rate	**End**
Test read interval 1	**0 – 0**
Test read interval 2	**0 – 0**
Check limits L/H	**0 / 0**

... Data entered by the operator

*** assigned value**