CE

CYPRESS DIAGNOSTICS

CY014

English

CYANVision

Application sheet

For a clear and precise diagnose

ISO 13485-2016

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DIRECTIONS FOR USE

AUTOMATION

CYANVision

CLINICAL CHEMISTRY

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CYPRESS DIAGNOSTICS

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2	Albumin - Bromocresol Green Colorimetric	ALB
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α-Amylase

CNPG3. Colorimetric. Kinetic

REF	**HBE03**
VOL	20 x 2 mL
Standard	-

REAGENT PREPARATION AND STABILITY

The Amylase reagent is ready to use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2 - 8 °C.
After opening, the reagent is stable for 60 days when properly capped immediately after each opening and stored at 2-8 °C. The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 405 nm ≥ 0,40, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

Calibration by means of a Factor. Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. Note 2
Control sera are recommended to monitor the performance of assay procedures. Use Biochemistry Normal and Pathological Controls (**HBC01, HBC02**). Prepare and measure these controls the same as samples. The control values can be found on the control sheets, delivered together with the control vials. If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

- Serum or plasma, remove from cells as soon as possible. It is recommended to use heparin as anticoagulant.
- Stability: 1 month at 2-8 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank Note 1	1,0 mL Reagent
For Sample/(Calibrator) Note 2,4	20 µL Sample/(Calibrator) + 1,0 mL Reagent

Prepare, mix and measure **one sample at a time**. Aspirate the mixture in the instrument, **immediately** after addition of the working solution to the sample/calibrator. Wait with the preparation of the next sample until the instrument is finished with measuring the previous one. At this time, the instrument asks to aspirate the sample.

PROGRAM SETUP

Prog. Name:	AAMY		**Linearity Max:**	2200	U/L	**STD variable:**	No Note 2	
Prog. ID:	1		**Fit:**	95		**Standard Conc.:**	0,0000 Note 2	
Prog. Version:	1		**Direction:**	Up		**Calibration repeats:**	0	
Method ID:	1		**Working reagent:**	No		**CAL CV%:**	0	
Method Name:	A-Amylase		**Blank Type:**	Reagent Note 1		**Temp flowcell:**	37	°C
Method Type:	Kinetic		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	405	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	28	U/L
Prog. Unit:	U/L		**Blank CV%:**	0		**Normal High - Male**	90	U/L
Decimals:	0		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	28	U/L
Aspiration Volume:	0800	µL	**Blank High:**	0,400 Note 1		**Normal High - Female**	90	U/L
Delay Time:	120	s	**Blank Mandatory:**	No		**Normal Low - Child**	28	U/L
Test Time:	090	s	**Factor:**	3954 Note 2		**Normal High - Child**	90	U/L
Dilution factor:	1		**Calib. By factor:**	Yes Note 2		**Method order:**	0	
Linearity Min:	0,2439	U/L	**Num of STD:**	0 Note 2				

MEASURING RANGE

This method is linear from 0,2439 U/L (detection limit) to 2200 U/L (linearity limit). If the obtained results are greater than 2200 U/L, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag. Programming reagent as blank gives you the advantage that deterioration of the reagent can be easily detected.
2. Calibration by means of a Factor. Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.

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Albumin

Bromocresol Green. Colorimetric

REF	HB0010	HB0010M
VOL	2 x 125 mL	8 x 30 mL
Standard	1 x 5 mL	-

REAGENT PREPARATION AND STABILITY

Reagent and standard are ready to use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2 - 25 °C.
Once open, the standard is stable up to 3 months.
Do not exceed the temperature of 25 °C during storage. The reagent should be a clear, yellow-green solution. If turbidity or precipitation has occurred or if blank absorbance at 620 nm ≥ 0,40, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. Note 2
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls **(HBC01, HBC02)**. Note 3 Prepare and measure these controls the same as samples. Measure at least one replicate per control. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: human serum or plasma, free of hemolysis. Stability 1 month at 2 - 8 °C or 1 week at 15 - 25 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank	1 mL Reagent
For Standard Note 2	5 µL Standard + 1 mL Reagent
For Sample	5 µL Sample + 1 mL Reagent

You can prepare several samples simultaneously. Mix and incubate for 10 minutes at room temperature. After the incubation time, aspirate and measure the samples within 1 hour after preparation.

PROGRAM SETUP

Prog. Name:	ALB		**Linearity Max:**	5,8	g/dL	**STD variable:**	Yes Note 2	
Prog. ID:	2		**Fit:**	0		**Standard Conc.:**	value: see vial Note 2	
Prog. Version:	1		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	2		**Working reagent:**	No		**CAL CV%:**	0	
Method Name:	Albumin		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	620	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	Yes		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	3,5	g/dL
Prog. Unit:	g/dL		**Blank CV%:**	0		**Normal High - Male**	5	g/dL
Decimals:	1		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	3,5	g/dL
Aspiration Volume:	0800	µL	**Blank High:**	0,400 Note 1		**Normal High - Female**	5	g/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	3,5	g/dL
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	5	g/dL
Dilution factor:	1		**Calib. By factor:**	No		**Method order:**	0	
Linearity Min:	0,038	g/dL	**Num of STD:**	1				

MEASURING RANGE

This method is linear from 0,038 g/dL (detection limit) to 5,8 g/dL (linearity limit). If the obtained results are greater than 5,8 g/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.
3. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.

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Alkaline Phosphatase

IFCC. Colorimetric. Kinetic

REF	**HBE12**
VOL	60 + 15 mL
Standard	-

REAGENT PREPARATION AND STABILITY

Mix 4 volumes of R1 (buffer) with 1 volume of R2 (substrate). The stability of working reagent is 21 days at 2-8 °C or 5 days at room temperature (15-25 °C).

All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C. Do not freeze the reagents.

The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 405 nm > 1,50, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

Calibration by means of a Factor. Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. Note 2

Control sera are recommended to monitor the performance of assay procedures. **Use Biochemistry Normal and Pathological Controls (HBC01, HBC02)**. Prepare and measure these controls the same as samples. The control values can be found on the control sheets, delivered together with the control vials. If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Serum or heparinized plasma. Use non-hemolyzed serum, separated from the cloth as soon as possible. Stability: 3 days at 2-8 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature.

Then, pipette into a test tube:

For Blank	1,00 mL Working reagent (R1 + R2)
For Sample/(Calibrator) Note 2	20 µL Sample/(Calibrator) + 1,00 mL Working reagent (R1 + R2)

Prepare, mix and measure **one sample at a time**. Aspirate the mixture in the instrument, **immediately** after addition of the working solution to the sample/calibrator. Wait with the preparation of the next sample until the instrument is finished with measuring the previous one. At this time, the instrument asks to aspirate the sample.

PROGRAM SETUP

Prog. Name:	ALP		**Linearity Max:**	1400	U/L	**STD variable:**	No Note 2	
Prog. ID:	3		**Fit:**	95		**Standard Conc.:**	0,0000 Note 2	
Prog. Version:	1		**Direction:**	Up		**Calibration repeats:**	0	
Method ID:	3		**Working reagent:**	Yes		**CAL CV%:**	0	
Method Name:	ALPhosphat(IFCC)		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	Kinetic		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	405	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	Yes		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	26	U/L
Prog. Unit:	U/L		**Blank CV%:**	0		**Normal High - Male**	117	U/L
Decimals:	0		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	26	U/L
Aspiration Volume:	0800	µL	**Blank High:**	1,500 Note 1		**Normal High - Female**	117	U/L
Delay Time:	060	s	**Blank Mandatory:**	No		**Normal Low - Child**	26	U/L
Test Time:	090	s	**Factor:**	2764 Note 2		**Normal High - Child**	117	U/L
Dilution factor:	1		**Calib. By factor:**	Yes Note 2		**Method order:**	0	
Linearity Min:	1,307	U/L	**Num of STD:**	0 Note 2				

MEASURING RANGE

This method is linear from 1,307 U/L (detection limit) to 1400 U/L (linearity limit). If the obtained results are greater than 1400 U/L, dilute the sample 1:10 with saline solution, repeat the determination, and multiply the result by factor 10.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag. Programming reagent as blank gives you the advantage that deterioration of the reagent can be easily detected.
2. Calibration by means of a Factor. Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.

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Bilirubin Direct

DMSO. Colorimetric

REF	HB0260	HB0020	HB0020A
VOL	2 x 125 mL	1 x 125 mL	4 x 125 mL

REAGENT PREPARATION AND STABILITY

All reagents are ready for use.

All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-25 °C. The reagent should be a clear solution. If turbidity or precipitation has occurred or if color development has occurred in reagent N, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

Calibration by means of a Factor. Preprogrammed factors can only be used when quality controls are within the defined ranges. Otherwise, use the Biochemistry Calibrator **(HBC03)** for calibration. Note 2

Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls **(HBC01, HBC02)**. Note 3 Prepare and measure these controls the same as samples. Measure at least one replicate per control. The control values can be found on the control sheets, delivered together with the control vials. If control values are found outside the defined range, check the instrument, reagents and calibration for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: human serum or plasma, free of hemolysis. Protect samples from direct light. Bilirubin is stable up to 4 days at 2-8 °C and 2 months at -20 °C.

PROCEDURE Note 4

Make sure the reagents and samples are at room temperature. Protect samples from direct sunlight. Then, pipette into a test tube:

For Reagent Blank	750 µL Reagent D
For Reagent	25 µL Reagent N + 750 µL Reagent D
For Sample/Cal Blank	100 µL Sample/Calibrator + 750 µL Reagent D
For Sample/Cal	100 µL Sample/Calibrator + 25 µL Reagent N + 750 µL Reagent D

Thus, for every sample, you need to prepare 2 test tubes: one for measuring the sample blank (background coloration) and one for measuring the real sample coloration. Add Reagent N only to the second tube. Add Reagent D last, mix and incubate for exactly 5 minutes at room temperature. Aspirate the mixture in the instrument, exactly 5 minutes **after addition of the Reagent D**.

Use the illustrations on the next page for guidance to perform this test in a time-efficient way. Watch our Bilirubin video: https://diagnostics.be/product/hb0260

PROGRAM SETUP

Prog. Name:	BILD		**Linearity Max:**	20	mg/dL	**STD variable:**	No Note 2	
Prog. ID:	4		**Fit:**	0		**Standard Conc.:**	0,0000 Note 2	
Prog. Version:	2		**Direction:**	Not applicable		**Calibration repeats:**	3	
Method ID:	4		**Working reagent:**	No		**CAL CV%:**	10	
Method Name:	Bilirubin direct		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	Yes Note 4		**Calib. Mandatory:**	No	
Main Filter:	546	nm	**VCF:**	0,97		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	0,06	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	0		**Normal High - Male**	0,25	mg/dL
Decimals:	2		**Blank Low:**	-0,100 Note 1		**Normal Low - Female**	0,06	mg/dL
Aspiration Volume:	0700	µL	**Blank High:**	0,100 Note 1		**Normal High - Female**	0,25	mg/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	0,06	mg/dL
Test Time:	003	s	**Factor:**	19 Note 2		**Normal High - Child**	0,25	mg/dL
Dilution factor:	1		**Calib. By factor:**	Yes Note 2		**Method order:**	0	
Linearity Min:	0,06	mg/dL	**Num of STD:**	0				

MEASURING RANGE

This method is linear from 0,06 mg/dL (detection limit) to 20 mg/dL (linearity limit). If the obtained results are greater than 20 mg/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. See CYANVision user manual for instructions to calibrate a test with a calibrator.
3. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.
4. This program requires a Sample Blank! Pay attention, this determines the calculation of the results, not the blank aspiration!
   - Aspirate distilled water to adjust the instrument to zero (AD value)
   - In the Blank menu,
     a. First: Aspirate "**Reagent Blank"**
     b. Secondly: Aspirate "**Reagent"**
     Reagent blank is required for each new reagent lot.
   - In the Standard/Sample menu,
     a. First: Aspirate Standard/Calibrator/Sample blank
     b. Secondly: Aspirate Standard/Calibrator/Sample
5. Carefully aspirate the sample in the tube. In case of air bubbles, a flag will be shown and a rerun should be performed.

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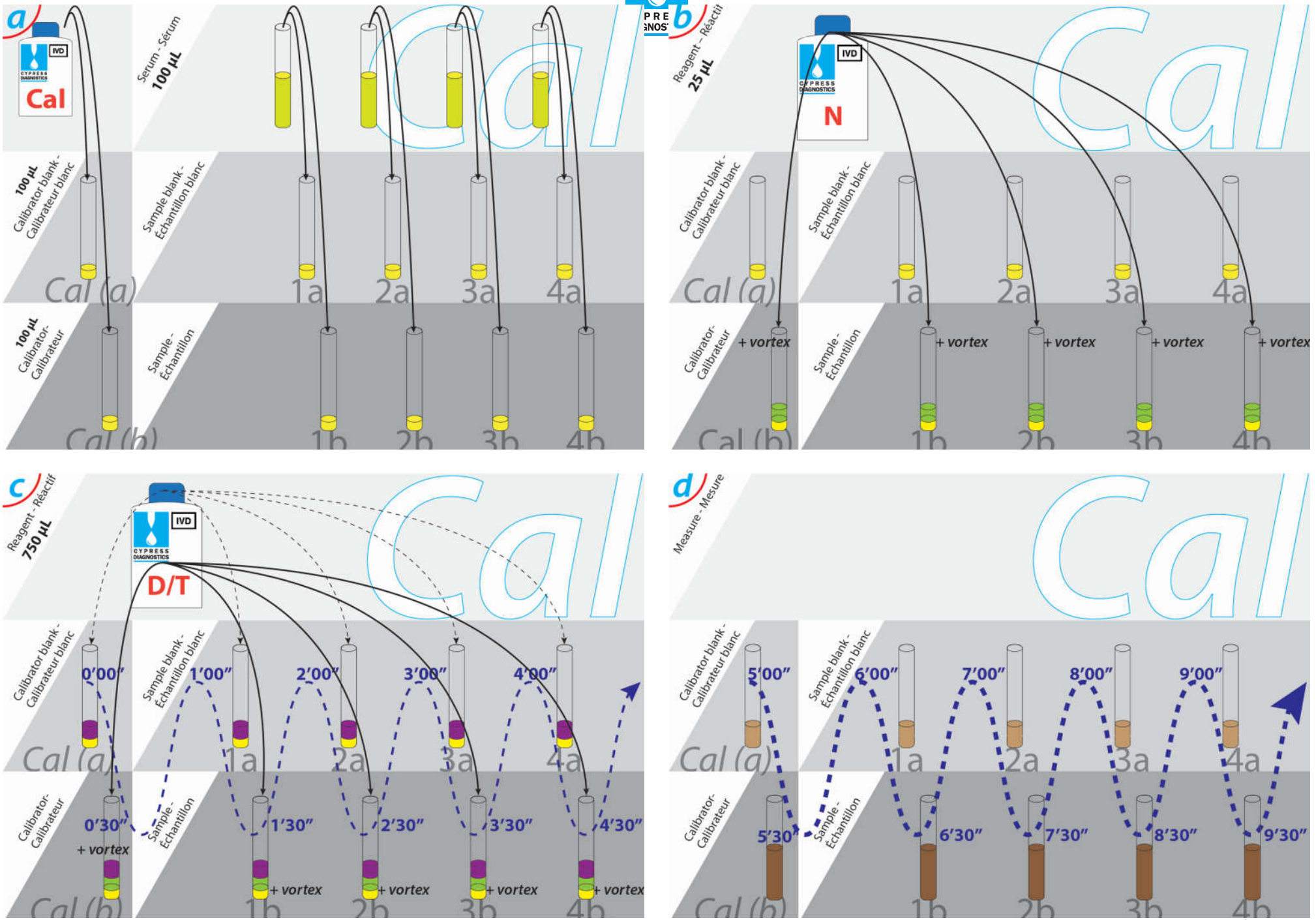

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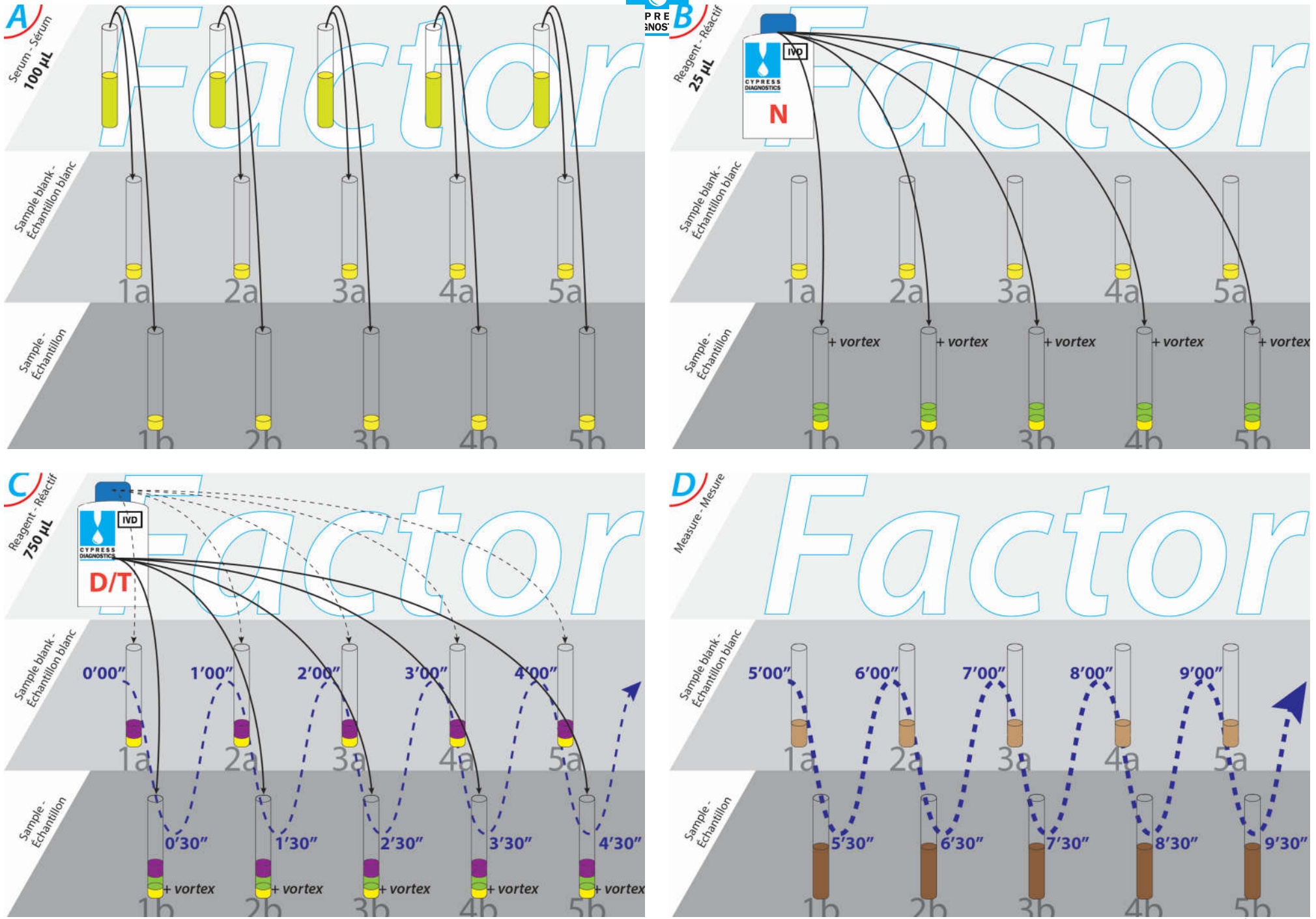

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Bilirubin Total

DMSO. Colorimetric

REF	HB0270	HB0020	HB0020A
VOL	2 x 125 mL	1 x 125 mL	4 x 125 mL

REAGENT PREPARATION AND STABILITY

All reagents are ready for use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-25 °C. The reagent should be a clear solution. If turbidity or precipitation has occurred or if color development has occurred in reagent N, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

Calibration by means of a Factor. Preprogrammed factors can only be used when quality controls are within the defined ranges. Otherwise, use the Biochemistry Calibrator **(HBC03)** for calibration. Note 2
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls **(HBC01, HBC02).** Note 3 Prepare and measure these controls the same as samples. Measure at least one replicate per control. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibration for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: human serum or plasma, free of hemolysis. Protect samples from direct light. Bilirubin is stable up to 4 days at 2-8 °C and 2 months at -20 °C.

PROCEDURE Note 4

Make sure the reagents and samples are at room temperature. Protect samples from direct sunlight. Then, pipette into a test tube:

For Reagent Blank	750 µL Reagent T
For Reagent	25 µL Reagent N + 750 µL Reagent T
For Sample/Cal Blank	100 µL Sample/Calibrator + 750 µL Reagent T
For Sample/Cal	100 µL Sample/Calibrator + 25 µL Reagent N + 750 µL Reagent T

Thus for every sample, you need to prepare 2 test tubes: one for measuring the sample blank (background coloration) and one for measuring the real sample coloration. Add Reagent N only to the second tube. Add Reagent T last, mix and incubate for exactly 5 minutes at room temperature. Aspirate the mixture in the instrument, exactly 5 minutes **after addition of the Reagent T.**
Use the illustrations on the next page for guidance to perform this test in a time-efficient way. Watch our Bilirubin video : https://diagnostics.be/product/hb0270

PROGRAM SETUP

Prog. Name:	BILT		**Linearity Max:**	20	mg/dL	**STD variable:**	No Note 2	
Prog. ID:	5		**Fit:**	0		**Standard Conc.:**	0,0000 Note 2	
Prog. Version:	2		**Direction:**	Not applicable		**Calibration repeats:**	3	
Method ID:	5		**Working reagent:**	No		**CAL CV%:**	10	
Method Name:	Bilirubin total		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	Yes Note 4		**Calib. Mandatory:**	No	
Main Filter:	546	nm	**VCF:**	0,97		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	0,2	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	0		**Normal High - Male**	1,1	mg/dL
Decimals:	1		**Blank Low:**	-0,100 Note 1		**Normal Low - Female**	0,2	mg/dL
Aspiration Volume:	0700	µL	**Blank High:**	0,100 Note 1		**Normal High - Female**	1,1	mg/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	0,2	mg/dL
Test Time:	003	s	**Factor:**	12 Note 2		**Normal High - Child**	1,1	mg/dL
Dilution factor:	1		**Calib. By factor:**	Yes Note 2		**Method order:**	0	
Linearity Min:	0,1	mg/dL	**Num of STD:**	0				

MEASURING RANGE

This method is linear from 0,1 mg/dL (detection limit) to 20 mg/dL (linearity limit). If the obtained results are greater than 20 mg/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. See CYANVision user manual for instructions to calibrate a test with a calibrator.
3. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.
4. This program requires a Sample Blank! Pay attention, this determines the calculation of the results, not the blank aspiration!
   - Aspirate distilled water to adjust the instrument to zero (AD value)
   - In the Blank menu,
     a. First: Aspirate "**Reagent Blank"**
     b. Secondly: Aspirate "**Reagent"**
     Reagent blank is required for each new reagent lot.
   - In the Standard/Sample menu,
     a. First: Aspirate Standard/Calibrator/Sample blank
     b. Secondly: Aspirate Standard/Calibrator/Sample
5. Carefully aspirate the sample in the tube. In case of air bubbles, a flag will be shown and a rerun should be performed.

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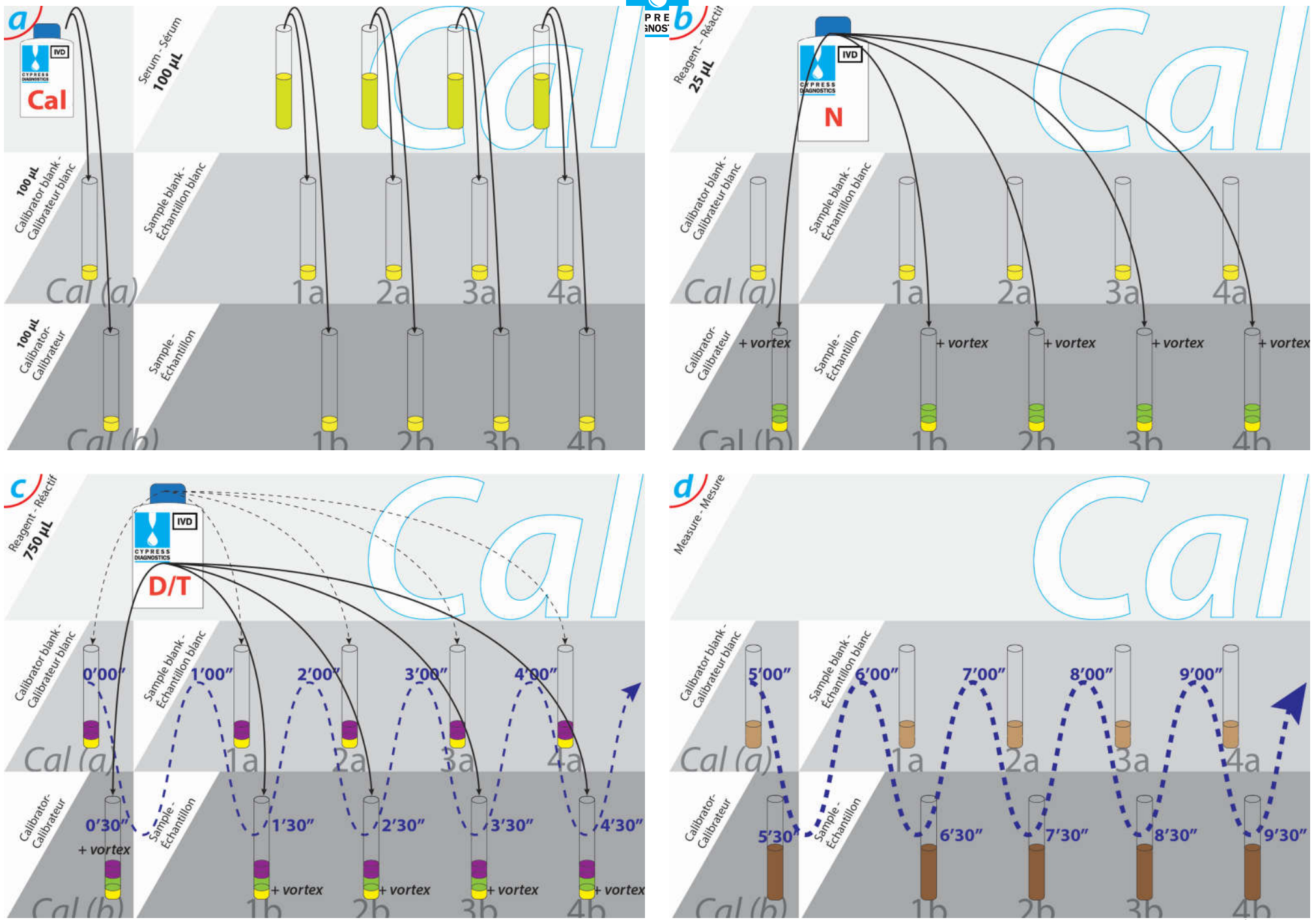

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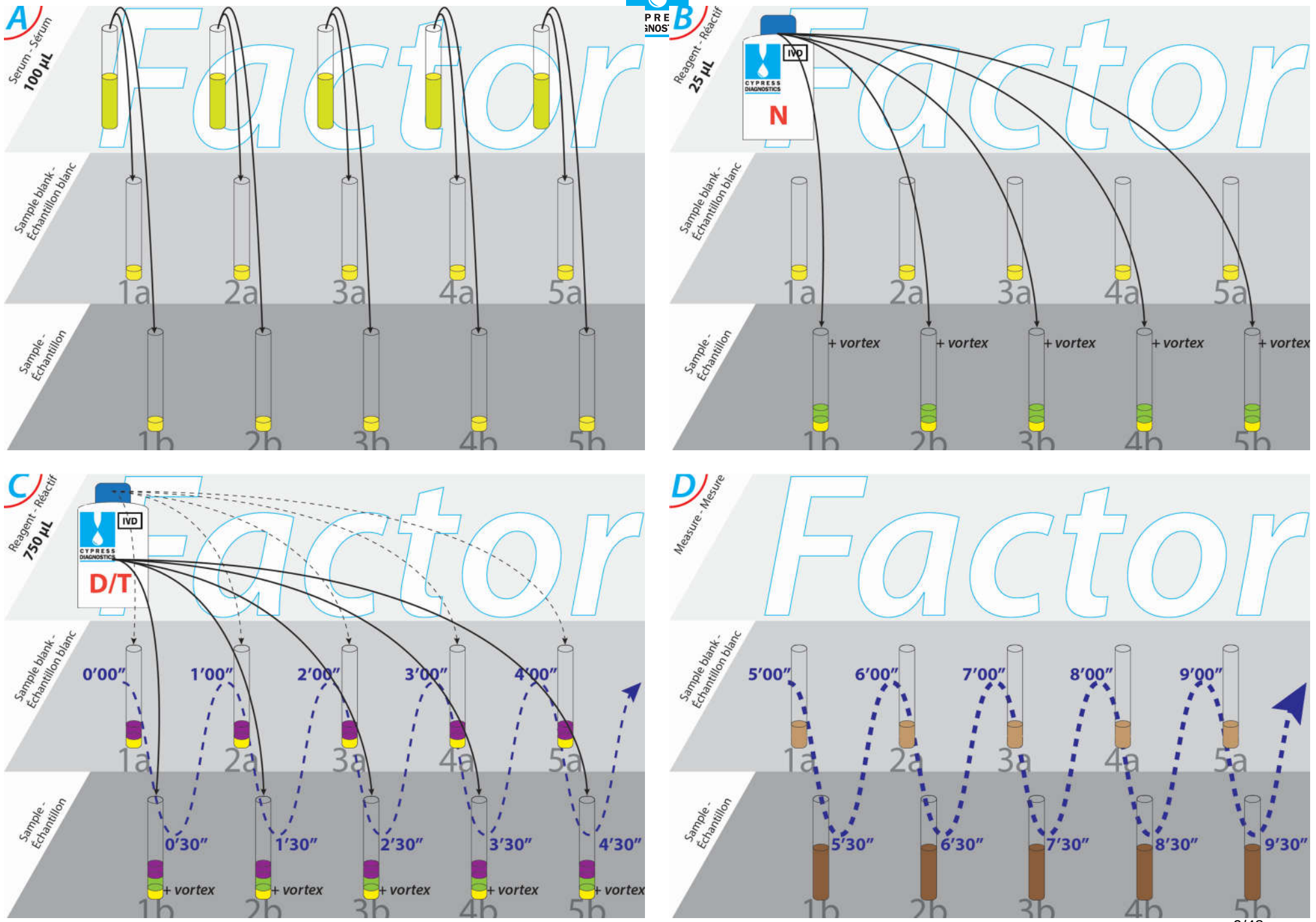

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Calcium

Arsenazo III. Colorimetric. Monoreagent

REF	HB0030	HB0030A	HB0030M
VOL	2 x 125 mL	8 x 125 mL	8 x 30 mL
Standard	1 x 5 mL	4 x 5 mL	-

REAGENT PREPARATION AND STABILITY

The reagent and standard are ready for use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C.
Handle standard very carefully to prevent contamination. The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 620 nm ≥ 0,80 the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. Note 2
Control sera are recommended to monitor the performance of assay procedures. Use Biochemistry Normal and Pathological Controls (**HBC01, HBC02**). Prepare and measure these controls the same as samples. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Serum or plasma: separated from cells as rapidly as possible. Blood anticoagulants with oxalate, citrate or EDTA are not acceptable since these chemicals will strongly chelate calcium.
Stability of the samples: Calcium is stable 10 days at 2-8 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature.
Then, pipette into a test tube:

For Blank	1,0 mL Reagent
For Standard Note 2	20 µL Standard + 1,0 mL Reagent
For Sample	20 µL Sample + 1,0 mL Reagent

You can prepare several samples simultaneously. Mix and incubate for 2 minutes at 15 - 25 °C (room temperature). After the incubation time, aspirate and measure the samples within 1 hour after preparation.

PROGRAM SETUP

Prog. Name:	CA		**Linearity Max:**	20	mg/dL	**STD variable:**	Yes Note 2	
Prog. ID:	6		**Fit:**	0		**Standard Conc.:**	value: see vial Note 2	
Prog. Version:	2		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	6		**Working reagent:**	No		**CAL CV%:**	0	
Method Name:	Calcium		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	620	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	Yes		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	3		**Normal Low - Male**	8,6	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	10		**Normal High - Male**	10,2	mg/dL
Decimals:	1		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	8,6	mg/dL
Aspiration Volume:	0800	µL	**Blank High:**	0,800 Note 1		**Normal High - Female**	10,2	mg/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	8,4	mg/dL
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	11	mg/dL
Dilution factor:	1		**Calib. By factor:**	No		**Method order:**	1	
Linearity Min:	0,1629	mg/dL	**Num of STD:**	1 Note 2				

MEASURING RANGE

This method is linear from 0,163 mg/dL (detection limit) to 20 mg/dL (linearity limit). If the obtained results are greater than 20 mg/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.

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Cholesterol

Enzymatic. Colorimetric test
CHOD-POD

REF	HBL010	HBL010A	HBL010M
VOL	2 x 125 mL	8 x 125 mL	8 x 30 mL
Standard	1 x 5 mL	4 x 5 mL	-

REAGENT PREPARATION AND STABILITY

The reagent and standard are ready to use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C.
Handle standard very carefully to prevent contamination. The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 510 nm ≥ 0,26, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. Note 2
Control sera are recommended to monitor the performance of assay procedures. Use Biochemistry Normal and Pathological Controls (**HBC01, HBC02**). Prepare and measure these controls the same as samples. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Serum or plasma: stability of the sample for 7 days at 2-8 °C or 3 months at -20 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank	1 mL Reagent
For Standard Note 2	10 µL Standard + 1 mL Reagent
For Sample	10 µL Sample + 1 mL Reagent

You can prepare several samples simultaneously. Mix and incubate for 10 minutes at 37 °C or for 15 minutes at 15 - 25 °C (room temperature). After the incubation time, aspirate and measure the samples within 45 minutes after preparation.

PROGRAM SETUP

Prog. Name:	CHOL		**Linearity Max:**	1000	mg/dL	**STD variable:**	Yes Note 2	
Prog. ID:	7		**Fit:**	0		**Standard Conc.:**	value: see vial Note 2	
Prog. Version:	2		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	8		**Working reagent:**	No		**CAL CV%:**	0	
Method Name:	Cholesterol		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	510	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	Yes		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	3		**Normal Low - Male**	120	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	10		**Normal High - Male**	200	mg/dL
Decimals:	0		**Blank Low:**	-0,010 Note 1		**Normal Low - Female**	120	mg/dL
Aspiration Volume:	0800	µL	**Blank High:**	0,260 Note 1		**Normal High - Female**	200	mg/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	120	mg/dL
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	170	mg/dL
Dilution factor:	1		**Calib. By factor:**	No Note 2		**Method order:**	0	
Linearity Min:	0,521	mg/dL	**Num of STD:**	1 Note 2				

MEASURING RANGE

This method is linear from 0,521 mg/dL (detection limit) to 1000 mg/dL (linearity limit). If the obtained results are greater than 1000 mg/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.

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Creatine Kinase MB

Immuno-inhibition. UV. Kinetic

REF	**HBEL05**
VOL	60 + 15 mL
CK (NAC & MB) Control	1 x Lyoph.-2 mL

REAGENT PREPARATION AND STABILITY

Working reagent: mix 4 volumes of R1 with 1 volume of R2. After mixing, allow to stand for 30 minutes prior to use. The stability of the working reagent is 7 days at 2-8 °C or 12 hours at room temperature (15-25 °C).
Control: dissolve the contents in 2 mL of distilled water. Cap vial and mix gently to dissolve the contents. Stability: 8 hours at 15-25 °C, 5 days at 2-8 °C or 1 month at -20 °C. Bring at room temperature for about 30 min before use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C.
The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 340 nm ≥ 1,20, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

Calibration by means of a Factor. Preprogrammed factors can only be used when quality controls are within the defined ranges. Otherwise, use the Biochemistry Calibrator (**HBC03**) for calibration.
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use the **CK (NAC&MB) control (HBC08**) included in the kit. Note 2 Prepare and measure these controls the same as samples. Measure at least one replicate per control. The control values can be found on the label of the control vial.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: human serum free of hemolysis, or heparin plasma.
Stability: 7 days at 2 - 8 °C, protected from light. CK-MB activity decreases a 10% after 24 hours at 4 °C or 1 hour at 25 °C. Use fresh samples.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank Note 1	1,00 mL Working reagent (R1 + R2)
For Sample/(Calibrator)	40 µL Sample/(Calibrator) + 1,00 mL Working reagent (R1 + R2)

Mix and incubate for **10 minutes at room temperature.** After the incubation time, aspirate and measure the sample.

PROGRAM SETUP

Prog. Name:	CKMB		**Linearity Max:**	1000	U/L	**STD variable:**	No	
Prog. ID:	8		**Fit:**	95		**Standard Conc.:**	0,0000	
Prog. Version:	2		**Direction:**	Up		**Calibration repeats:**	0	
Method ID:	11		**Working reagent:**	Yes		**CAL CV%:**	0	
Method Name:	Creat KinaseMB		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	Kinetic		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	340	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	1,9	U/L
Prog. Unit:	U/L		**Blank CV%:**	0		**Normal High - Male**	24	U/L
Decimals:	2		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	1,9	U/L
Aspiration Volume:	0800	µL	**Blank High:**	1,200 Note 1		**Normal High - Female**	24	U/L
Delay Time:	10	s	**Blank Mandatory:**	No		**Normal Low - Child**	1,9	U/L
Test Time:	300	s	**Factor:**	8255		**Normal High - Child**	24	U/L
Dilution factor:	1		**Calib. By factor:**	Yes		**Method order:**	0	
Linearity Min:	1,9	U/L	**Num of STD:**	0				

MEASURING RANGE

This method is linear from 1,9 U/L (detection limit) to 1000 U/L (linearity limit). If the obtained results are greater than 1000 U/L, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag. Programming reagent as blank gives you the advantage that deterioration of the reagent can be easily detected.
2. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.

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Creatine Kinase NAC

NAC Activated. UV. Kinetic

REF	**HBEL03**
VOL	60 + 15 mL

REAGENT PREPARATION AND STABILITY

Mix 4 volumes of reagent 1 with 1 volume of reagent 2. The stability of the working reagent is 2 weeks a 2 - 8 °C or 48 hours at room temperature (15 - 25 °C).
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2 - 8 °C.
The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 340 nm ≥ 1,0 the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

Calibration by means of a Factor. Preprogrammed factors can only be used when quality controls are within the defined ranges. Otherwise, use the Biochemistry Calibrator **(HBC03)** for calibration. Note 2
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls **(HBC01, HBC02)**. Also a **CK (NAC & MB) Control (HBC08)** is available. Note 3 Prepare and measure these controls the same as samples. Measure at least one replicate per control. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: human serum free of hemolysis, or heparin plasma.
Stability: 7 days at 2 - 8 °C, protected from light. The creatinine kinase activity decreases 10% after 1 day at 2 - 5 °C or after 1 hour at 15 - 25 °C. Use fresh samples.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank Note 1	1,00 mL Working reagent (R1 + R2)
For Sample/(Calibrator) Note 2	20 µL Sample/(Calibrator) + 1,00 mL Working reagent (R1 + R2)

Prepare, mix and measure **one sample at a time**. Aspirate the mixture in the instrument, **immediately** after addition of the working solution to the sample/calibrator. Wait with the preparation of the next sample until the instrument is finished with measuring the previous one. At this time, the instrument asks "Press PUSH Aspirate Sample".

PROGRAM SETUP

Prog. Name:	CKNAC		**Linearity Max:**	2000	U/L	**STD variable:**	No Note 2	
Prog. ID:	9		**Fit:**	95		**Standard Conc.:**	0,0000 Note 2	
Prog. Version:	1		**Direction:**	Up		**Calibration repeats:**	0	
Method ID:	12		**Working reagent:**	Yes		**CAL CV%:**	0	
Method Name:	Creat KinaseNAC		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	Kinetic		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	340	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	46	U/L
Prog. Unit:	U/L		**Blank CV%:**	0		**Normal High - Male**	195	U/L
Decimals:	1		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	34	U/L
Aspiration Volume:	0800	µL	**Blank High:**	1,000 Note 1		**Normal High - Female**	170	U/L
Delay Time:	120	s	**Blank Mandatory:**	No		**Normal Low - Child**	34	U/L
Test Time:	090	s	**Factor:**	8095 Note 2		**Normal High - Child**	170	U/L
Dilution factor:	1		**Calib. By factor:**	Yes Note 2		**Method order:**	0	
Linearity Min:	2,12	U/L	**Num of STD:**	0				

MEASURING RANGE

This method is linear from 2,12 U/L (detection limit) to 2000 U/L (linearity limit). If the obtained results are greater than 2000 U/L, dilute the sample 1:10 with saline solution, repeat the determination, and multiply the result by factor 10.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag. Programming reagent as blank gives you the advantage that deterioration of the reagent can be easily detected.
2. See CYANVision user manual for instructions to calibrate a test with a calibrator.
3. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.

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Chloride

Thiocyanate. Colorimetric

REF	HB005
VOL	2 x 125 mL
Standard	1 x 5 mL

REAGENT PREPARATION AND STABILITY

The reagent is ready for use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2 - 8 °C.
The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 440-500 nm ≥ 0,15, the reagent should be discarded. Handle standard very carefully to prevent contamination. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. Note 2
Control sera are recommended to monitor the performance of assay procedures. Use Biochemistry Normal and Pathological Controls (**HBC01, HBC02**)**.** Prepare and measure these controls the same as samples. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

- Serum, plasma: Free of hemolysis and separated from cells as rapidly as possible. Anticoagulants such as oxalate or EDTA will interfere.
- Chloride is stable 1 week at room temperature (15-25 °C), 15 days in refrigerator (2-8 °C) and 1 month frozen (-20 °C).

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank	1,00 mL Reagent 1
For Standard Note 2	10 µL Standard + 1,00 mL Reagent 1
For Sample	10 µL Sample + 1,00 mL Reagent 1

You can prepare several samples simultaneously. Mix and incubate for 5 minutes at 37 °C or for 5 minutes at 15 - 25 °C (room temperature). After the incubation time, aspirate and measure the samples within 30 minutes after preparation.

PROGRAM SETUP

Prog. Name:	CL		**Linearity Max:**	190	mEq/L	**STD variable:**	Yes Note 2	
Prog. ID:	10		**Fit:**	0		**Standard Conc.:**	value: see vial Note 2	
Prog. Version:	2		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	7		**Working reagent:**	No		**CAL CV%:**	0	
Method Name:	Chloride		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	450	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	Yes		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	95	mEq/L
Prog. Unit:	mEq/L		**Blank CV%:**	0		**Normal High - Male**	115	mEq/L
Decimals:	0		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	95	mEq/L
Aspiration Volume:	0800	µL	**Blank High:**	0,150 Note 1		**Normal High - Female**	115	mEq/L
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	95	mEq/L
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	115	mEq/L
Dilution factor:	1		**Calib. By factor:**	No		**Method order:**	2	
Linearity Min:	0,454	mEq/L	**Num of STD:**	1 Note 2				

MEASURING RANGE

This method is linear from 0,454 mEq/L (detection limit) to 190 mEq/L (linearity limit). If the obtained results are greater than 190 mEq/L, dilute the sample 1:2 with distilled water, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator (HBC03) for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.

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Creatinine

Jaffé. Colorimetric. Kinetic without deproteinization

REF	HB0080	HB0080A	HB0080M
VOL	2 x 125 mL	8 x 125 mL	8 x 30 mL
Standard	1 x 5 mL	4 x 5 mL	-

REAGENT PREPARATION AND STABILITY

Mix proportionally 1:1 R1 Picric Reagent and R2 Alkaline Reagent. The working reagent is stable for 10 days at 15-25 °C.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-25 °C.
Handle standard very carefully to prevent contamination. The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 510 nm ≥ 1,80, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. Note 2
Control sera are recommended to monitor the performance of assay procedures. Use Biochemistry Normal and Pathological Controls (**HBC01, HBC02**). Prepare and measure these controls the same as samples. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Use serum or heparinized plasma. Creatinine is stable 24 hours at 2-8 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank Note 1	1,00 mL Working reagent
For Standard Note 2	100 µL Standard + 1,00 mL Working reagent
For Sample	100 µL Sample + 1,00 mL Working reagent

Prepare, mix and measure **one sample at a time.** Aspirate the mixture in the instrument, **immediately** after addition of the working solution to the sample/calibrator. Wait with the preparation of the next sample until the instrument is finished with measuring the previous one. At this time, the instrument asks to aspirate the sample.

PROGRAM SETUP

Prog. Name:	CRE		**Linearity Max:**	15	mg/dL	**STD variable:**	Yes Note 2	
Prog. ID:	11		**Fit:**	0		**Standard Conc.:**	value: see vial Note 2	
Prog. Version:	2		**Direction:**	Up		**Calibration repeats:**	0	
Method ID:	13		**Working reagent:**	Yes		**CAL CV%:**	0	
Method Name:	Creatinine		**Blank Type:**	Reagent Note 1		**Temp flowcell:**	37	°C
Method Type:	Two Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	510	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	0,7	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	0		**Normal High - Male**	1,4	mg/dL
Decimals:	1		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	0,6	mg/dL
Aspiration Volume:	0800	µL	**Blank High:**	1,800 Note 1		**Normal High - Female**	1,1	mg/dL
Delay Time:	030	s	**Blank Mandatory:**	No		**Normal Low - Child**	0,6	mg/dL
Test Time:	060	s	**Factor:**	0		**Normal High - Child**	1,1	mg/dL
Dilution factor:	1		**Calib. By factor:**	No		**Method order:**	0	
Linearity Min:	0,115	mg/dL	**Num of STD:**	1 Note 2				

MEASURING RANGE

This method is linear from 0,115 mg/dL (detection limit) to 15 mg/dL (linearity limit). If the obtained results are greater than 15 mg/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag. Programming reagent as blank gives you the advantage that deterioration of the reagent can be easily detected.
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.

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γ-GT

Carboxy substrate. Colorimetric. Kinetic

REF	HBEL06	HBEL061
VOL	240 + 60 mL	60 +15 mL
Standard	-	-

REAGENT PREPARATION AND STABILITY

Mix 4 volumes of R1 (Buffer) with 1 volume of R2 (Substrate). The stability of this working reagent is 21 days at 2-8 °C or 5 days at room temperature (15-25 °C).

All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C.

The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 405 nm ≥ 1,80, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

Calibration by means of a Factor. Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. Note 2

Control sera are recommended to monitor the performance of assay procedures. Use Biochemistry Normal and Pathological Controls (**HBC01, HBC02**). Prepare and measure these controls the same as samples. The control values can be found on the control sheets, delivered together with the control vials.

If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Serum: γ-GT is stable for at least 3 days at 2-8 °C, 8 hours at 15-25 °C and 1 month at -20 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank Note 1	1,00 mL Working reagent (R1 + R2)
For Sample/(Calibrator) Note 2	100 µL Sample/(Calibrator) + 1,00 mL Working reagent (R1 + R2)

Prepare, mix and measure **one sample at a time.** Aspirate the mixture in the instrument, **immediately** after addition of the working reagent to the sample/(calibrator). Wait with the preparation of the next sample until the instrument is finished with measuring the previous one. At this time, the instrument asks to aspirate the sample.

PROGRAM SETUP

Prog. Name:	GGT		**Linearity Max:**	300	U/L	**STD variable:**	No Note 2	
Prog. ID:	13		**Fit:**	95		**Standard Conc.:**	0,0000 Note 2	
Prog. Version:	1		**Direction:**	Up		**Calibration repeats:**	0	
Method ID:	14		**Working reagent:**	Yes		**CAL CV%:**	0	
Method Name:	G-GT		**Blank Type:**	Reagent Note 1		**Temp flowcell:**	37	°C
Method Type:	Kinetic		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	405	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	11	U/L
Prog. Unit:	U/L		**Blank CV%:**	0		**Normal High - Male**	50	U/L
Decimals:	0		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	7	U/L
Aspiration Volume:	0800	µL	**Blank High:**	1,800 Note 1		**Normal High - Female**	32	U/L
Delay Time:	060	s	**Blank Mandatory:**	No		**Normal Low - Child**	7	U/L
Test Time:	090	s	**Factor:**	1190 Note 2		**Normal High - Child**	32	U/L
Dilution factor:	1		**Calib. By factor:**	Yes Note 2		**Method order:**	0	
Linearity Min:	2	U/L	**Num of STD:**	0 Note 2				

MEASURING RANGE

This method is linear from 2 U/L (detection limit) to 300 U/L (linearity limit). If the obtained results are greater than 300 U/L, dilute the sample 1:10 with saline solution, repeat the determination, and multiply the result by factor 10.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag. Programming reagent as blank gives you the advantage that deterioration of the reagent can be easily detected.
2. Calibration by means of a Factor. Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.

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Glucose

Enzymatic. Colorimetric
GOD-POD

REF	HBL04	HBL04A	HBL04M
VOL	2 x 125 mL	8 x 125 mL	8 x 30 mL
Standard	1 x 5 mL	4 x 5 mL	-

REAGENT PREPARATION AND STABILITY

Reagent and standard are ready to use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2 - 8 °C.
Handle standards very carefully to prevent contamination. The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 510 nm ≥ 0,32, the reagent should be discarded. Do not use the product if deterioration or contamination is suspected or beyond the expiration date. Dispose unused or deteriorated product and waste in compliance with local regulations.[Note 1]

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration.[Note 2]
Control sera are recommended to monitor the performance of assay procedures. Use Biochemistry Normal and Pathological Controls (**HBC01, HBC02**). Prepare and measure these controls the same as samples. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Fluoride plasma, free of hemolysis. Plasma should be isolated in blood tubes containing sodium fluoride (NaF) to inhibit glycolysis. In fluoride plasma, the glucose concentration is stable for up to 3 days at room temperature. For fasting glucose determination, fasting for at least 12 hours is recommended before sample collection.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank	1,00 mL Reagent
For Standard[Note 2]	10 µL Standard + 1,00 mL Reagent
For Sample	10 µL Sample + 1,00 mL Reagent

You can prepare several samples simultaneously. Mix and incubate for 10 minutes at 37 °C or for 15 minutes at 15-25 °C (room temperature). After the incubation time, aspirate and measure the samples within 40 minutes after preparation.

PROGRAM SETUP

Prog. Name:	GLUC		**Linearity Max:**	420	mg/dL	**STD variable:**	Yes[Note 2]	
Prog. ID:	14		**Fit:**	0		**Standard Conc.:**	value: see vial[Note 2]	
Prog. Version:	2		**Direction:**	Not applicable		**Calibration repeats:**	3	
Method ID:	15		**Working reagent:**	No		**CAL CV%:**	10	
Method Name:	Glucose		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	510	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	620	nm	**Blank substraction:**	Yes		**SampleTypeRefValue:**	Plasma	
Bichromatic Factor:	0,19		**Num of Blank:**	1		**Normal Low - Male**	74	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	0		**Normal High - Male**	100	mg/dL
Decimals:	0		**Blank Low:**	-0,010[Note 1]		**Normal Low - Female**	74	mg/dL
Aspiration Volume:	0800	µL	**Blank High:**	0,320[Note 1]		**Normal High - Female**	100	mg/dL
Delay Time:	001	s	**Blank Mandatory:**	Yes		**Normal Low - Child**	60	mg/dL
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	100	mg/dL
Dilution factor:	1		**Calib. By factor:**	No		**Method order:**	0	
Linearity Min:	14,10	mg/dL	**Num of STD:**	1[Note 2]				

MEASURING RANGE

This method is linear from 14,1 mg/dL (detection limit) to 420 mg/dL (linearity limit). If the obtained results are greater than 420 mg/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator (**HBC03)** for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.

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GOT (AST)

NADH. UV. Kinetic. According to IFCC

REF	HBEL010	HBEL010M
VOL	1 x 240 + 1 x 60 mL	6 x 30 + 3 x 15 mL

REAGENT PREPARATION AND STABILITY

Mix 4 volumes of R1 (buffer) with 1 volume of R2 (substrate). The stability of the working reagent is 24 hours at 15 - 25 °C or 14 days at 2 - 8 °C.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2 - 8 °C.
The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 340 nm < 1,00, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

Calibration by means of a Factor. Preprogrammed factors can only be used when quality controls are within the defined ranges. Otherwise, use the Biochemistry Calibrator **(HBC03)** for calibration. Note 2
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls **(HBC01, HBC02)**. Note 3 Prepare and measure these controls the same as samples. Measure at least one replicate per control. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: human serum or plasma Stability 2 days at 2 - 8 °C. Fasting of at least 12 hours is recommended before sample collection.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank Note 1	1,00 mL Working reagent (R1 + R2)
For Sample/(Calibrator) Note 2	100 µL Sample/(Calibrator) + 1,00 mL Working reagent (R1 + R2)

Prepare, mix and measure **one sample at a time.** Aspirate the mixture in the instrument, **immediately** after addition of the working reagent to the sample/(calibrator). Wait with the preparation of the next sample until the instrument is finished with measuring the previous one. At this time, the instrument asks to aspirate the sample.

PROGRAM SETUP

Prog. Name:	GOT		**Linearity Max:**	260	U/L	**STD variable:**	No	
Prog. ID:	15		**Fit:**	95		**Standard Conc.:**	0,0000	
Prog. Version:	1		**Direction:**	Down		**Calibration repeats:**	0	
Method ID:	17		**Working reagent:**	Yes		**CAL CV%:**	0	
Method Name:	GOT (ast)		**Blank Type:**	Reagent Note 1		**Temp flowcell:**	37	°C
Method Type:	Kinetic		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	340	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	3,1	U/L
Prog. Unit:	U/L		**Blank CV%:**	0		**Normal High - Male**	38	U/L
Decimals:	1		**Blank Low:**	1,000 Note 1		**Normal Low - Female**	3,1	U/L
Aspiration Volume:	0800	µL	**Blank High:**	3,500 Note 1		**Normal High - Female**	38	U/L
Delay Time:	060	s	**Blank Mandatory:**	No		**Normal Low - Child**	3,1	U/L
Test Time:	090	s	**Factor:**	-1750 Note 2		**Normal High - Child**	31	U/L
Dilution factor:	1		**Calib. By factor:**	Yes Note 2		**Method order:**	0	
Linearity Min:	3,12	U/L	**Num of STD:**	0				

MEASURING RANGE

This method is linear from 3,12 U/L (detection limit) to 260 U/L (linearity limit). If the obtained results are greater than 260 U/L, dilute the sample 1:10 with saline solution, repeat the determination, and multiply the result by factor 10.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag. Programming reagent as blank gives you the advantage that deterioration of the reagent can be easily detected.
2. See CYANVision user manual for instructions to calibrate a test with a calibrator.
3. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.

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GPT (ALT)

NADH. UV. Kinetic. According to IFCC

REF	HBEL020	HBEL020M
VOL	1 x 240 + 1 x 60 mL	6 x 30 + 3 x 15 mL

REAGENT PREPARATION AND STABILITY

Mix 4 volumes of R1 (Buffer) with 1 volume of R2 (Substrate). The stability of the working reagent is 24 hours at 15-25 °C or 4 weeks at 2-8 °C.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2 - 8 °C.
The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 340 nm < 1,00, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

Calibration by means of a Factor. Preprogrammed factors can only be used when quality controls are within the defined ranges. Otherwise, use the Biochemistry Calibrator **(HBC03)** for calibration. Note 2
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls **(HBC01, HBC02)**. Note 3 Prepare and measure these controls the same as samples. Measure at least one replicate per control. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: human serum or plasma. Stability 1 day at 2-8 °C. Fasting of at least 12 hours is recommended before sample collection.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank Note 1	1,00 mL Working reagent (R1 + R2)
For Sample/(Calibrator) Note 2	100 µL Sample/(Calibrator) + 1,00 mL Working reagent (R1 + R2)

Prepare, mix and measure **one sample at a time**. Aspirate the mixture in the instrument, **immediately** after addition of the working reagent to the sample/calibrator. Wait with the preparation of the next sample until the instrument is finished with measuring the previous one. At this time, the instrument asks to aspirate the sample.

PROGRAM SETUP

Prog. Name:	GPT		**Linearity Max:**	260	U/L	**STD variable:**	No	
Prog. ID:	16		**Fit:**	95		**Standard Conc.:**	0,0000	
Prog. Version:	1		**Direction:**	Down		**Calibration repeats:**	0	
Method ID:	18		**Working reagent:**	Yes		**CAL CV%:**	0	
Method Name:	GPT (alt)		**Blank Type:**	Reagent Note 1		**Temp flowcell:**	37	°C
Method Type:	Kinetic		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	340	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	3	U/L
Prog. Unit:	U/L		**Blank CV%:**	0		**Normal High - Male**	40	U/L
Decimals:	0		**Blank Low:**	1,000 Note 1		**Normal Low - Female**	3	U/L
Aspiration Volume:	0800	µL	**Blank High:**	3,500 Note 1		**Normal High - Female**	32	U/L
Delay Time:	060	s	**Blank Mandatory:**	No		**Normal Low - Child**	3	U/L
Test Time:	090	s	**Factor:**	-1750 Note 2		**Normal High - Child**	32	U/L
Dilution factor:	1		**Calib. By factor:**	Yes Note 2		**Method order:**	0	
Linearity Min:	3	U/L	**Num of STD:**	0				

MEASURING RANGE

This method is linear from 3 U/L (detection limit) to 260 U/L (linearity limit). If the obtained results are greater than 260 U/L, dilute the sample 1:10 with saline solution, repeat the determination, and multiply the result by factor 10.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag. Programming reagent as blank gives you the advantage that deterioration of the reagent can be easily detected.
2. See CYANVision user manual for instructions to calibrate a test with a calibrator.
3. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.

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HbA1c Turbi

Turbidimetric

REF	**HT001**
VOL	30 + 10 mL
Standard	-

REAGENT PREPARATION AND STABILITY

Reagent 1, 2 and 3 are ready to use. Latex may sediment. Mix reagents gently before use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2 - 8 °C.
Reagent 1 and 2 are stable for at least one month after opening when stored at 2 - 8 °C. Reagent deterioration: alterations in the physical appearance of the reagents or values of control materials outside of the manufacturer's acceptable range may be an indication of reagent instability.

CALIBRATION & QUALITY CONTROL

Use the **HbA1c Calibrator set (HT001S)** Program the values mentioned on the vials in the method programming. Use saline solution (9 g/L NaCl) or distilled water as STD 1, with value 0,001.[Note 2]
Control sera are recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. **HbA1c Control (HT001C) is available.** The control values can be found on the label of the control vial. Prepare and measure these controls the same as samples. The controls require pretreatment (hemolysate preparation) after being reconstituted. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary. If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: human blood.
Special preparation of the patients is unnecessary. Fasting samples are not required. No special additives or preservatives other than anticoagulants are required. Collect venous blood with EDTA using aseptic technique. HbA_1c in whole blood collected with EDTA is stable for one week at 2 - 8 °C.
To determine HbA1c, a hemolysate must be prepared for each sample as well as for the HbA1c Calibrator (Level 1 to 4) and HbA1c Control:
1. Dispense 1 mL of Reagent 3 into labelled test tubes (glass or plastic). Also provide test tubes for the calibrator and control.
2. Add 20 µL of well mixed whole blood (sample, calibrator, control) in the appropriate labelled test tube. Mix.
3. Allow to stand for 5 minutes or until complete lysis is evident. Hemolysates may be stored up to 10 days at 2 - 8 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Mix reagents gently and pipette into a test tube:

For Blank	540 µL Reagent 1
For Calibrators/Sample	15 µL Calibrator/Sample (hemolyzed) + 540 µL Reagent 1
Mix and incubate for **exactly 5 minutes at 37** °C. Then add:	
For Blank	180 µL Reagent 2
For Calibrators/Sample	180 µL Reagent 2
Mix and incubate for **exactly 5 minutes at 37** °C. Then aspirate to measure.	

You can prepare several samples simultaneously, as long as you respect the incubation times indicated.

PROGRAM SETUP

Prog. Name:	HbA1c		**Fit:**	0		**Standard Conc. 2:**	(=CAL1)[Note 2]	%
Prog. ID:	17		**Direction:**	Not applicable		**Standard Conc. 3:**	(=CAL2)[Note 2]	%
Prog. Version:	2		**Working reagent:**	No		**Standard Conc. 4:**	(=CAL3)[Note 2]	%
Method ID:	20		**Blank Type:**	Reagent		**Standard Conc. 5:**	(=CAL4)[Note 2]	%
Method Name:	HbA1c		**Sample Blank:**	No		**Calibration repeats:**	0	
Method Type:	End Point		**VCF:**	1		**CAL CV%:**	0	
Main Filter:	670	nm	**Blank substraction:**	Yes		**Temp flowcell:**	37	°C
Sub Filter:	None		**Num of Blank:**	1		**Calib. Mandatory:**	No	
Bichromatic Factor:	0		**Blank CV%:**	0		**Control Mandatory:**	No	
Prog. Unit:	%		**Blank Low:**	0,000[Note 1]		**SampleTypeRefValue:**	Blood	
Decimals:	0		**Blank High:**	2,000[Note 1]		**Normal Low - Male**	2	%
Aspiration Volume:	0500	µL	**Blank Mandatory:**	No		**Normal High - Male**	6	%
Delay Time:	001	s	**Factor:**	0		**Normal Low - Female**	2	%
Test Time:	003	s	**Calib. By factor:**	No		**Normal High - Female**	6	%
Dilution factor:	1		**Num of STD:**	5[Note 2]		**Normal Low - Child**	2	%
Linearity Min:	2,0000	%	**STD variable:**	Yes[Note 2]		**Normal High - Child**	6	%
Linearity Max:	16,0000	%	**Standard Conc. 1:**	0,0010[Note 2]	%	**Method order:**	0	

MEASURING RANGE

This method is linear from 2,0 % (detection limit) to 16,0 % (linearity limit).

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Enter the concentration values shown on the calibrator vials. STD1 corresponds with a saline solution of 9 g/L or distilled water, STD 2 corresponds to calibrator 1; STD 3 to calibrator 2; STD 4 to calibrator 3 and STD 5 to calibrator 4.

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HDL Cholesterol

Enzymatic. Colorimetric

REF	**HBL011**
VOL	120 + 40 mL
Standard	-

REAGENT PREPARATION AND STABILITY

R1 and R2 are ready to use.

All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C. The reagents are light sensitive. Do not leave bottles open. Do not freeze the reagents.

R1 and R2: once opened they are stable 60 days at 2-8 °C. The reagent should be a clear solution. If turbidity or precipitation has occurred, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

Use the HDL/LDL calibrator (**HBC11**) for calibration. The concentration is lot specific and given on the label of the calibrator. Note 3

Control sera are recommended to monitor the performance of assay procedures. Use the **HDL/LDL Control kit** (**HBC10).** Prepare and measure these controls the same as samples. The control values can be found on the label of the control vial (**HBC10**). If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Serum or plasma (EDTA, citrate, Li Heparin). Fasting and non-fasting samples can be used.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Reagent Blank Note 2	10 µL Distilled water + 750 µL R1
For Reagent Note 2	10 µL Distilled water + 750 µL R1
For Sample/Calibrator Blank Note 3	10 µL Sample/Calibrator + 750 µL R1
For Sample/Calibrator Note 3	10 µL Sample/Calibrator + 750 µL R1
Mix and incubate for **exactly 5 minutes at 37 °C.** Then add:	
For Reagent Blank Note 2	-
For Reagent Note 2	250 µL R2
For Sample/Calibrator Blank Note 3	-
For Sample/Calibrator Note 3	250 µL R2
Mix and incubate for **exactly 5 minutes at 37** °C. Then aspirate to measure.	

Thus, for every sample, you need to prepare 2 test tubes: one for the Calibrator/Sample Blank, to measure the background coloration caused by the sample, and one for the Calibrator/Sample to measure the coloration caused by the reaction. After mixing Calibrator/Sample and R1, incubate at 37 °C for exactly 5 minutes. Then add R2 only to the Calibrator/Sample tube, mix and incubate for another 5 minutes at 37 °C. Then aspirate the mixtures in the analyser to measure exactly 10 minutes after adding R1. You can prepare several samples simultaneously, as long as you respect the incubation times indicated. **Use the illustrations on the next page for guidance to perform this test in a time-efficient way.**

PROGRAM SETUP

Prog. Name:	HDL		**Linearity Max:**	184,8	mg/dL	**STD variable:**	Yes Note 3	
Prog. ID:	18		**Fit:**	0		**Standard Conc.:**	(value see vial) Note 3	
Prog. Version:	1		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	9		**Working reagent:**	No		**CAL CV%:**	0	
Method Name:	Cholesterol HDL		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	Yes Note 2		**Calib. Mandatory:**	No	
Main Filter:	578	nm	**VCF:**	0,75		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	59	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	0		**Normal High - Male**	70	mg/dL
Decimals:	0		**Blank Low:**	-0,010 Note 1		**Normal Low - Female**	59	mg/dL
Aspiration Volume:	0550	µL	**Blank High:**	1,000 Note 1		**Normal High - Female**	89	mg/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	59	mg/dL
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	81	mg/dL
Dilution factor:	1		**Calib. By factor:**	No Note 3		**Method order:**	0	
Linearity Min:	1,06	mg/dL	**Num of STD:**	1 Note 3				

MEASURING RANGE

This method is linear from 1,06 mg/dL (detection limit) to 184,8 mg/dL (linearity limit). If the obtained results are greater than 184,8 mg/dL, dilute the sample 1:2 with NaCl 9 g/L, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. This program requires a Sample Blank! Pay attention, this determines the calculation of the results, not the blank aspiration!
   - Aspirate distilled water to adjust the instrument to zero (AD value)
   - In the Blank menu,
     a. First: Aspirate "**Reagent Blank"**
     b. Secondly: Aspirate "**Reagent"**
     Reagent blank is required for each new reagent lot.
   - In the Standard/Sample menu,
     a. First: Aspirate Standard/Calibrator/Sample blank
     b. Secondly: Aspirate Standard/Calibrator/Sample
3. Use the HDL/LDL calibrator (**HBC11)** for calibration. Enter the concentration values shown on the calibrator vials (**HBC11**).

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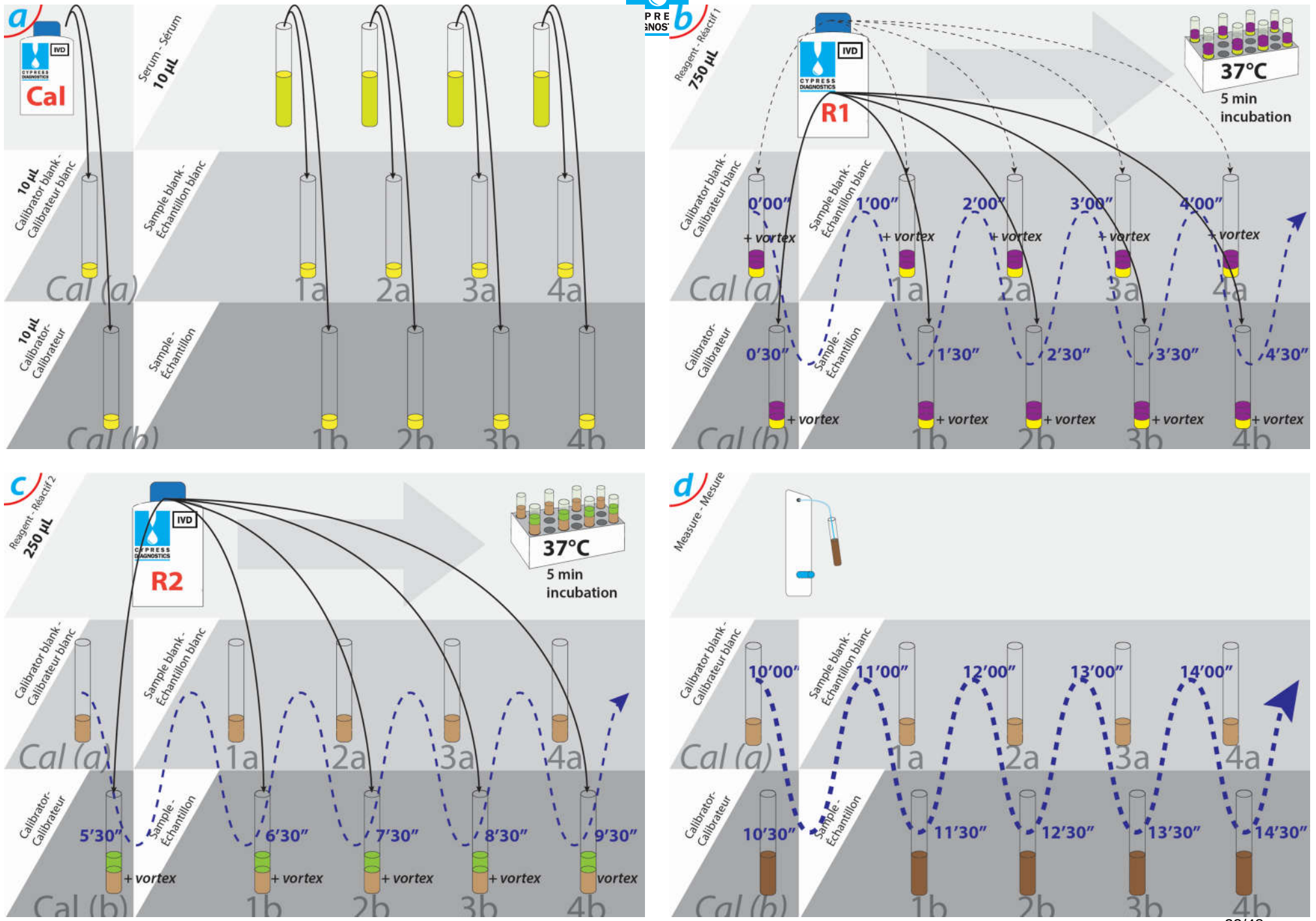

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Hemoglobin

Drabkin. Colorimetric.

REF	**HB011**
VOL	4 x 5 mL
Standard	-

REAGENT PREPARATION AND STABILITY

Working reagent :
- 4,9 mL distilled water + 2 drops of reagent and mix.

Or:
- 245 mL distilled water + 5 mL of reagent and mix.

The diluted reagent (working reagent) is stable 2 months at 2-8 °C, protected from sunlight.

All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2 - 8 °C.

The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 540 nm ≥ 0,01, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

Use the **Hemoglobin Calibrator (HBS02)**. Note 2
Hemoglobin Calibrator (**HBS02**) is ready to use. Hemoglobin Calibrator (**HBS02**) is stable at 2-8 °C up to the date of expiration as specified, when stored tightly closed, protected from light and contaminations, prevented during its use.

Control sera are recommended to monitor the performance of assay procedures. If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Capillary or venous blood. Use anticoagulants like EDTA, heparin or oxalate. Stability 7 days at 2-8 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank	2,5 mL Working Reagent
For Calibrator	10 µL Calibrator + 2,5 mL Working Reagent
For Sample	10 µL Sample + 2,5 mL Working Reagent

Mix and incubate for 3 minutes at 15-25 °C. Then aspirate to measure. You can prepare several samples simultaneously, as long as you respect the incubation times indicated.

PROGRAM SETUP

Prog. Name:	HGB		**Linearity Max:**	20	g/dL	**STD variable:**	No Note 2	
Prog. ID:	19		**Fit:**	0		**Standard Conc.:**	15,0000 Note 2	
Prog. Version:	1		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	19		**Working reagent:**	Yes		**CAL CV%:**	0	
Method Name:	Haemoglobin		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	546	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	Yes		**SampleTypeRefValue:**	Blood	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	14	g/dL
Prog. Unit:	g/dL		**Blank CV%:**	0		**Normal High - Male**	18	g/dL
Decimals:	0		**Blank Low:**	-0,010 Note 1		**Normal Low - Female**	12	g/dL
Aspiration Volume:	0800	µL	**Blank High:**	0,010 Note 1		**Normal High - Female**	16	g/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	12	g/dL
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	16	g/dL
Dilution factor:	1		**Calib. By factor:**	No Note 2		**Method order:**	0	
Linearity Min:	0,1	g/dL	**Num of STD:**	1 Note 2				

MEASURING RANGE

This method is linear from 0,1 g/dL (detection limit) to 20 g/dL (linearity limit). If the obtained results are greater than 20 g/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Use the **Hemoglobin Calibrator (HBS02).** Enter the concentration value shown on the calibrator vial.

2021-02 (1.0) - Replaces all previous versions

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Iron

Ferrozine. Colorimetric

REF	HB012
VOL	4 x 50 mL
Standard	1 x 10 mL

REAGENT PREPARATION AND STABILITY

R3 is ready to use.

Add the contents of one tube R2 reductant to the contents of one bottle R1 buffer. Cap and mix gently to dissolve content. This working reagent is stable for 3 months at 2-8 °C or 1 month at room temperature (15-25 °C). All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2 - 8 °C. Handle standard very carefully to prevent contamination. The reagent should be a clear solution. If turbidity or precipitation has occurred or if the reagent blanc absorbance at 530-590 nm ≥ 0,02, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator Specific (**HBC03-S**) for calibration. Note 3

Control sera are recommended to monitor the performance of assay procedures. Use Biochemistry Normal and Pathological Controls Specific **(HBC01-S, HBC02-S)**. Prepare and measure these controls the same as samples. The control values can be found on the control sheets, delivered together with the control vials. If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Serum or heparinized plasma. Hemolysis interferes with the test. Separate from the cells as rapidly as possible. The iron is stable up to 7 days stored at 2-8 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Reagent Blank Note 2	200 µL Distilled water + 1 mL Working reagent
For Reagent Note 2	200 µL Distilled water + 1 mL Working reagent + 1 drop R3
For Standard Blank Note 3	200 µL Standard + 1 mL Working reagent
For Sample Blank Note 2	200 µL Sample + 1 mL Working reagent
For Standard Note 3	200 µL Standard + 1 mL Working reagent + 1 drop R3
For Sample	200 µL Sample + 1 mL Working reagent + 1 drop R3

Mix and incubate for 10 minutes at 15-25 °C. After the incubation time, aspirate and measure all the samples within 30 min after preparation.

Thus, **for every sample, you need to prepare 2 test tubes:** one for measuring the sample blank (background coloration) and one for measuring the real sample coloration.

PROGRAM SETUP

Prog. Name:	IRON		**Linearity Max:**	1000	µg/dL	**STD variable:**	Yes Note 3	
Prog. ID:	20		**Fit:**	0		**Standard Conc.:**	value: see vial Note 3	
Prog. Version:	2		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	21		**Working reagent:**	Yes		**CAL CV%:**	0	
Method Name:	Iron		**Blank Type:**	Reagent Note 2		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	Yes Note 2		**Calib. Mandatory:**	No	
Main Filter:	578	nm	**VCF:**	0,96		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	65	µg/dL
Prog. Unit:	µg/dL		**Blank CV%:**	0		**Normal High - Male**	175	µg/dL
Decimals:	0		**Blank Low:**	-0,010 Note 1		**Normal Low - Female**	40	µg/dL
Aspiration Volume:	0800	µL	**Blank High:**	0,020 Note 1		**Normal High - Female**	150	µg/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	40	µg/dL
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	150	µg/dL
Dilution factor:	1		**Calib. By factor:**	No Note 3		**Method order:**	3	
Linearity Min:	0,85	µg/dL	**Num of STD:**	1 Note 3				

MEASURING RANGE

This method is linear from 0,85 µg/dL (detection limit) to 1000 µg/dL (linearity limit). If the obtained results are greater than 1000 µg/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. This program requires a Sample Blank! Pay attention, this determines the calculation of the results, not the blank aspiration!
   - Aspirate distilled water to adjust the instrument to zero (AD value)
   - In the Blank menu,
     a. First: Aspirate "**Reagent Blank**"
     b. Secondly: Aspirate "**Reagent**"
     Reagent blank is required for each new reagent lot.
   - In the Standard/Sample menu,
     a. First: Aspirate Standard/Calibrator/Sample blank
     b. Secondly: Aspirate Standard/Calibrator/Sample
3. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator Specific (HBC03-S) for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.

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Lactate Dehydrogenase

Pyruvate DGKC. UV. Kinetic.

REF	HBEL04	HBEL041
VOL	240 + 60 mL	60 + 15 mL
Standard	-	-

REAGENT PREPARATION AND STABILITY

Mix 4 volumes of R1 (buffer) with 1 volume of R2 (substrate). The stability of working reagent is 15 days at 2-8 °C or 5 days at room temperature (15-25 °C).

All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C.

The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 340 nm < 1,00, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

Calibration by means of a Factor. Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. Note 2

Control sera are recommended to monitor the performance of assay procedures. Use Biochemistry Normal and Pathological Controls (**HBC01, HBC02**). The control values can be found on the control sheets, delivered together with the control vials. Prepare and measure these controls the same as samples.

If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Serum, separated from the cells as rapidly as possible. Do not use oxalates as anticoagulants since they inhibit the enzyme. Do not use hemolyzed samples. LDH in the serum is stable for 2 days at 2-8 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature.

Then, pipette into a test tube:

For Blank Note 2	0,9 mL Working reagent (R1 + R2)
For Sample/(Calibrator) Note 2	15 µL Sample/(Calibrator) + 0,9 mL Working reagent (R1 + R2)

Prepare, mix and measure one sample at a time. Aspirate the mixture in the instrument, immediately after addition of the working solution to the sample/calibrator. Wait with the preparation of the next sample until the instrument is finished with measuring the previous one. At this time, the instrument asks to aspirate the sample

PROGRAM SETUP

Prog. Name:	LDH		**Linearity Max:**	1600	U/L	**STD variable:**	No Note 2	
Prog. ID:	21		**Fit:**	95		**Standard Conc.:**	0,0000 Note 2	
Prog. Version:	1		**Direction:**	Down		**Calibration repeats:**	0	
Method ID:	22		**Working reagent:**	No		**CAL CV%:**	0	
Method Name:	LDH		**Blank Type:**	Reagent Note 1		**Temp flowcell:**	37	°C
Method Type:	Kinetic		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	340	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	230	U/L
Prog. Unit:	U/L		**Blank CV%:**	0		**Normal High - Male**	460	U/L
Decimals:	0		**Blank Low:**	1,000 Note 1		**Normal Low - Female**	230	U/L
Aspiration Volume:	0700	µL	**Blank High:**	3,500 Note 1		**Normal High - Female**	460	U/L
Delay Time:	060	s	**Blank Mandatory:**	No		**Normal Low - Child**	230	U/L
Test Time:	090	s	**Factor:**	-9690 Note 2		**Normal High - Child**	460	U/L
Dilution factor:	1		**Calib. By factor:**	Yes Note 2		**Method order:**	0	
Linearity Min:	3,42	U/L	**Num of STD:**	0 Note 2				

MEASURING RANGE

This method is linear from 3,42 U/L (detection limit) to 1600 U/L (linearity limit). If the obtained results are greater than 1600 U/L, dilute the sample 1:10 with saline solution, repeat the determination, and multiply the result by factor 10.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag. Programming reagent as blank gives you the advantage that deterioration of the reagent can be easily detected.
2. Calibration by means of a Factor. Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.

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REF	HBL012
VOL	120 + 40 mL
Standard	-

LDL Cholesterol

Enzymatic. Colorimetric.

REAGENT PREPARATION AND STABILITY

R1 and R2 are ready to use.

All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, **protected from light** and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C. The reagents are light sensitive. Do not leave bottles open. Do not freeze the reagents.

R1 and R2: once opened they are stable for 60 days at 2-8 °C. The reagents should be a clear solution. If turbidity or precipitation has occurred, the reagent should be discarded.[Note 1]

CALIBRATION & QUALITY CONTROL

Use the HDL/LDL calibrator (**HBC11**) for calibration. The concentration is lot specific and given on the label of the calibrator.[Note 3]

Control sera are recommended to monitor the performance of assay procedures. **Use the HDL/LDL Control kit (HBC10).** Prepare and measure these controls the same as samples. The control values can be found on the label of the HDL/LDL Direct control set vials (**HBC10**). If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Serum or plasma (EDTA, citrate). Fasting and non-fasting samples can be used. Do not use plasma containing heparin as anticoagulant.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Reagent Blank[Note 2]	10 µL Distilled water + 750 µL R1
For Reagent[Note 2]	10 µL Distilled water + 750 µL R1
For Sample/Calibrator Blank[Note 3]	10 µL Sample/Calibrator + 750 µL R1
For Sample/Calibrator[Note 3]	10 µL Sample/Calibrator + 750 µL R1
Mix and incubate for **exactly 5 minutes at 37 °C.** Then add:	
For Reagent Blank[Note 2]	-
For Reagent[Note 2]	250 µL R2
For Sample/Calibrator Blank[Note 3]	-
For Sample/Calibrator[Note 3]	250 µL R2
Mix and incubate for **exactly 5 minutes at 37** °C. Then aspirate to measure.	

Thus for every sample, you need to prepare 2 test tubes: one for the Calibrator/Sample Blank, to measure the background coloration caused by the sample, and one for the Calibrator/Sample to measure the coloration caused by the reaction. After mixing Calibrator/Sample and R1, incubate at 37 °C for exactly 5 minutes. Then add R2 only to the Calibrator/Sample tube, mix and incubate for another 5 minutes at 37 °C. Then aspirate the mixtures in the analyser to measure exactly 10 minutes after adding R1. You can prepare several samples simultaneously as long as you respect the times mentioned.

Use the illustrations on the next page for guidance to perform this test in a time-efficient way.

PROGRAM SETUP

Prog. Name:	LDL		**Linearity Max:**	250	mg/dL	**STD variable:**	Yes[Note 3]	
Prog. ID:	22		**Fit:**	0		**Standard Conc.:**	value: see vial[Note 3]	
Prog. Version:	1		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	10		**Working reagent:**	No		**CAL CV%:**	0	
Method Name:	Cholesterol LDL		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	Yes[Note 2]		**Calib. Mandatory:**	No	
Main Filter:	578	nm	**VCF:**	0,75		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	50	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	0		**Normal High - Male**	100	mg/dL
Decimals:	0		**Blank Low:**	-0,010[Note 1]		**Normal Low - Female**	62	mg/dL
Aspiration Volume:	0550	µL	**Blank High:**	1,000[Note 1]		**Normal High - Female**	100	mg/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	46	mg/dL
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	100	mg/dL
Dilution factor:	1		**Calib. By factor:**	No[Note 3]		**Method order:**	0	
Linearity Min:	1,64	mg/dL	**Num of STD:**	1[Note 3]				

MEASURING RANGE

This method is linear from 1,64 mg/dL (detection limit) to 250 mg/dL (linearity limit). If the obtained results are greater than 250 mg/dL, dilute the sample 1:2 with NaCl 9 g/L, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. This program requires a Sample Blank! Pay attention, this determines the calculation of the results, not the blank aspiration!
   - Aspirate distilled water to adjust the instrument to zero (AD value)
   - In the Blank menu,
     a. First: Aspirate "**Reagent Blank"**
     b. Secondly: Aspirate "**Reagent"**
     Reagent blank is required for each new reagent lot.
   - In the Standard/Sample menu,
     a. First: Aspirate Standard/Calibrator/Sample blank
     b. Secondly: Aspirate Standard/Calibrator/Sample
3. Use the HDL/LDL calibrator (**HBC11**) for calibration. Enter the concentration values shown on the calibrator vials (**HBC11**).

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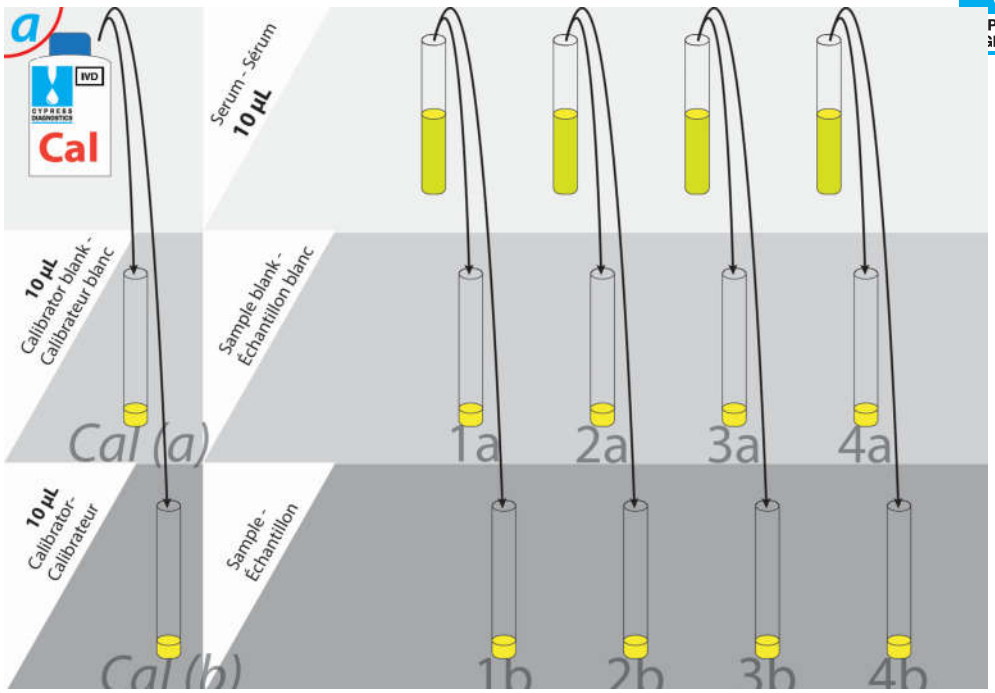

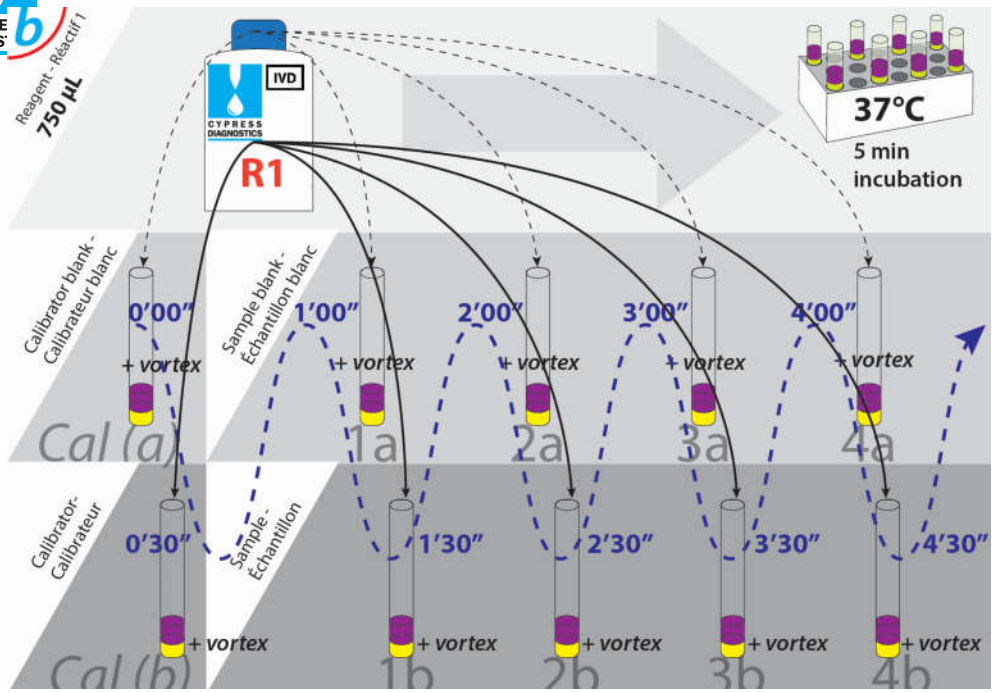

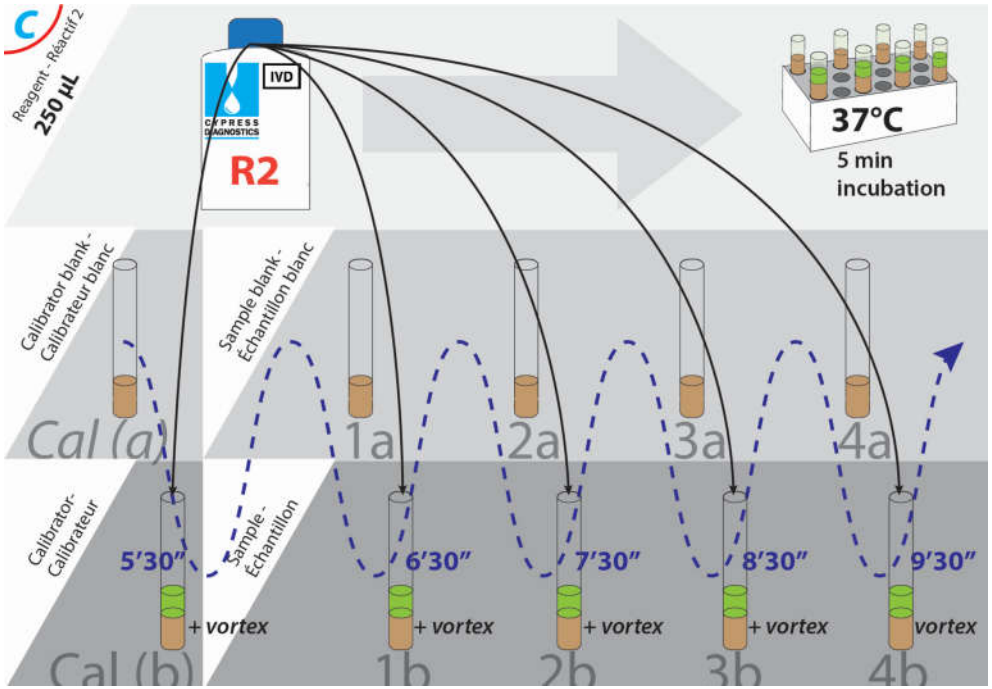

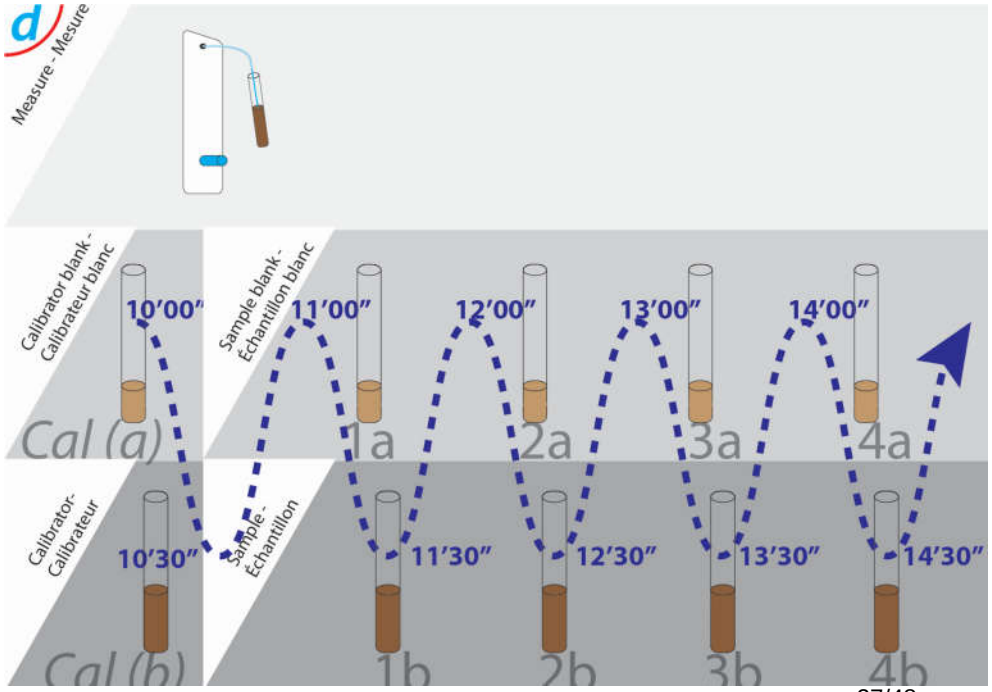

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Lipase

Enzymatic. Colorimetric. Kinetic

REF	**HBE09**
VOL	4 x 10 mL
Calibrator	1 x Lyoph. - 1 mL

REAGENT PREPARATION AND STABILITY

R1 and R2: ready to use. Stability after opening 90 days at 2-8 °C.
R2: mix gently before use. Note 1
Calibrator: reconstitute the contents of one vial with 1 mL of distilled water. Mix gently until complete solution. Stability: 7 days at 2-8 °C. Divide calibrator solution into small volumes and freeze. Stability: 3 months at -20 °C.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C.
The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 580 nm ≥ 1,4, the reagent should be discarded. R2 is a turbid orange-colored micro-emulsion, discard if turning to red. Note 2

CALIBRATION & QUALITY CONTROL

Use the calibrator included in the kit. Note 3
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls **(HBC01, HBC02).** Note 4 Prepare and measure these controls the same as samples. Measure at least one replicate per control. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: human serum or plasma. Plasma: with sodium citrate, EDTA or heparin.
Stability: 2 days at 2 - 8 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Reagent Blank Note 2	10 µL Distilled water + 1 mL Reagent 1 + 200 µL Reagent 2
For Calibrator Note 3	10 µL Calibrator + 1 mL Reagent 1 + 200 µL Reagent 2
For Sample	10 µL Sample + 1 mL Reagent 1 + 200 µL Reagent 2

Prepare, mix and measure **one sample at a time.** Aspirate the mixture in the instrument, **immediately** after addition of the working reagent to the sample/calibrator. Wait with the preparation of the next sample until the instrument is finished with measuring the previous one. At this time, the instrument asks to aspirate the sample.

PROGRAM SETUP

Prog. Name:	LIPASE		**Linearity Max:**	250	U/L	**STD variable:**	Yes Note 3	
Prog. ID:	23		**Fit:**	95		**Standard Conc.:**	value: see vial Note 3	
Prog. Version:	1		**Direction:**	Up		**Calibration repeats:**	3	
Method ID:	23		**Working reagent:**	No		**CAL CV%:**	10	
Method Name:	Lipase		**Blank Type:**	Reagent Note 1		**Temp flowcell:**	37	°C
Method Type:	Kinetic		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	578	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	5	U/L
Prog. Unit:	U/L		**Blank CV%:**	0		**Normal High - Male**	38	U/L
Decimals:	0		**Blank Low:**	0,000 Note 2		**Normal Low - Female**	5	U/L
Aspiration Volume:	0800	µL	**Blank High:**	1,400 Note 2		**Normal High - Female**	38	U/L
Delay Time:	060	s	**Blank Mandatory:**	No		**Normal Low - Child**	5	U/L
Test Time:	090	s	**Factor:**	0		**Normal High - Child**	38	U/L
Dilution factor:	1		**Calib. By factor:**	No Note 3		**Method order:**	0	
Linearity Min:	5	U/L	**Num of STD:**	1 Note 3				

MEASURING RANGE

This method is linear from 5 U/L (detection limit) to 250 U/L (linearity limit). If the obtained results are greater than 250 U/L, dilute the sample 1:10 with saline solution, repeat the determination, and multiply the result by factor 10.

NOTES

1. In some storage conditions (lower than the one indicated) a precipitate may appear in the vial that will not influence the reagent performance. However, it is recommended to re-suspend the product with a slight rotation.
2. If the blank absorbance is out of range, the instrument will give you a flag. Programming reagent as blank gives you the advantage that deterioration of the reagent can be easily detected.
3. Use the calibrator included in the kit. Enter the concentration values shown on the calibrator vials. Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.
4. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.

2023-06 (3.0) - Replaces all previous versions

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Magnesium

Xylidyl Blue - EGTA. Colorimetric

REF	HB0320	HB0320M
VOL	2 x 125 mL	8 x 30 mL
Standard	1 x 5 mL	-

REAGENT PREPARATION AND STABILITY

The reagent and standard are ready to use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2 - 25 °C.
Handle standard very carefully to prevent contamination. The reagent should be a clear blue solution. If turbidity or precipitation has occurred, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. Note 2
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls **(HBC01, HBC02)**. Note 3 Prepare and measure these controls the same as samples. Measure at least one replicate per control. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: human serum or heparinized plasma, free of hemolysis and separated from cells as rapidly as possible. Do not use oxalates, citrate or EDTA as anticoagulant. Stability: 5 days at 4 - 8 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank	1 mL Reagent
For Standard Note 2	10 µL Standard + 1 mL Reagent
For Sample	10 µL Sample + 1 mL Reagent

You can prepare several samples simultaneously. Mix and incubate for 3 minutes at 37 °C or for 5 minutes at 15-25 °C (room temperature). After the incubation time, aspirate and measure the samples within 45 minutes after preparation.

PROGRAM SETUP

Prog. Name:	MG		**Linearity Max:**	6,6	mg/dL	**STD variable:**	Yes Note 2	
Prog. ID:	24		**Fit:**	0		**Standard Conc.:**	value: see vial Note 2	
Prog. Version:	2		**Direction:**	Not applicable		**Calibration repeats:**	3	
Method ID:	24		**Working reagent:**	No		**CAL CV%:**	10	
Method Name:	Magnesium		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	510	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	Yes		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	3		**Normal Low - Male**	1,6	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	10		**Normal High - Male**	2,5	mg/dL
Decimals:	1		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	1,6	mg/dL
Aspiration Volume:	0800	µL	**Blank** High:	1,500 Note 1		**Normal High - Female**	2,5	mg/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	1,6	mg/dL
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	2,5	mg/dL
Dilution factor:	1		**Calib. By factor:**	No		**Method order:**	4	
Linearity Min:	0,05	mg/dL	**Num of STD:**	1				

MEASURING RANGE

This method is linear from 0,05 mg/dL (detection limit) to 6,6 mg/dL (linearity limit). If the obtained results are greater than 6,6 mg/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.
3. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.

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REF	HB014
VOL	2 x 125 mL
Standard	1 x 5 mL

Phosphorus

Phosphomolybdate. UV.

REAGENT PREPARATION AND STABILITY

Reagent and standard are ready to use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C.
Handle standard very carefully to prevent contamination. The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 340 nm ≥ 0,54, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. Note 2
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls **(HBC01, HBC02).** Note 3 Prepare and measure these controls the same as samples. Measure at least one replicate per control. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: human serum or plasma, free of hemolysis and separated from cells as rapidly as possible. Stability: 7 days at 2 - 8 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank	1 mL Reagent
For Standard Note 2	10 µL Standard + 1 mL Reagent
For Sample	10 µL Sample + 1 mL Reagent

Mix and incubate for **5 minutes** at 37 °C. Then aspirate to measure. You can prepare several samples simultaneously, as long as you respect the incubation times indicated.

PROGRAM SETUP

Prog. Name:	PHOSPH		**Linearity Max:**	35	mg/dL	**STD variable:**	Yes Note 2	
Prog. ID:	25		**Fit:**	0		**Standard Conc.:**	value: see vial Note 2	
Prog. Version:	2		**Direction:**	Not applicable		**Calibration repeats:**	3	
Method ID:	25		**Working reagent:**	No		**CAL CV%:**	10	
Method Name:	Phosphorus		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	340	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	Yes		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	2,5	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	0		**Normal High - Male**	5	mg/dL
Decimals:	1		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	2,5	mg/dL
Aspiration Volume:	0800	µL	**Blank High:**	0,540 Note 1		**Normal High - Female**	5	mg/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	4	mg/dL
Test Time:	003	s	**Factor:**	0 Note 2		**Normal High - Child**	7	mg/dL
Dilution factor:	1		**Calib. By factor:**	No		**Method order:**	5	
Linearity Min:	0	mg/dL	**Num of STD:**	1				

MEASURING RANGE

This method is linear from 0 mg/dL (detection limit) to 35 mg/dL (linearity limit). If the obtained results are greater than 35 mg/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.
3. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.

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REF	HB015
VOL	3 x 50 mL
Standard	1 x 3 mL

Potassium Prec

NaTPB. Colorimetric. Precipitation

REAGENT PREPARATION AND STABILITY

Working reagent: Shake R2 (NaOH) before use. Mix proportionally 1:1 Reagent 1 and Reagent 2. After mixing, allow to stand for 30 minutes prior to use. Before each use**, the working reagent must be shaken. The working reagent is stable for 7 days at 15-25 °C and 30 days at 2-8 °C.**
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2 - 8 °C. Handle standard very carefully to prevent contamination. Do not freeze or expose to elevated temperatures. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator Specific **(HBC03-S)** for calibration. Note 2
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls Specific **(HBC01-S, HBC02-S)**. Note 3 Prepare and measure these controls the same as samples. Measure at least one replicate per control. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: non hemolytic serum or heparin plasma.

PROCEDURE

Make sure the reagents and samples are at room temperature.
Then, pipette into a test tube:

PRECIPITATION STEP:	
For Sample	50 µL Sample + 500 µL Reagent 3
Mix carefully. Centrifuge at high speed (± 5000 rpm) for 5-10 minutes. Separate the clear supernatant in a new test tube.	
TEST STEP: pipette into a cuvette:	
For Blank	1,0 mL Working reagent (R1 + R2)
For Standard Note 2	100 µL Standard + 1,0 mL Working reagent (R1 + R2)
For Sample	100 µL Supernatant + 1,0 mL Working reagent (R1 + R2)

You can prepare several samples simultaneously. To produce a homogeneous turbidity, the standard or the clear supernatant must be added to the surface of the working reagent in the test tube. Mix each test tube carefully before proceeding to the next sample. Mix and allow to stand for 5 min. After the incubation time, aspirate and measure all the samples within 30 min after addition of the working solution.

PROGRAM SETUP

Prog. Name:	POT		**Linearity Max:**	10	mEq/L	**STD variable:**	Yes Note 2	
Prog. ID:	26		**Fit:**	0		**Standard Conc.:**	value: see vial Note 2	
Prog. Version:	2		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	26		**Working reagent:**	Yes		**CAL CV%:**	0	
Method Name:	Potassium		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	578	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	Yes		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	3,6 Note 4	mEq/L
Prog. Unit:	mEq/L		**Blank CV%:**	0		**Normal High - Male**	5,5 Note 4	mEq/L
Decimals:	1		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	3,6 Note 4	mEq/L
Aspiration Volume:	0800	µL	**Blank High:**	3,500 Note 1		**Normal High - Female**	5,5 Note 4	mEq/L
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	3,6 Note 4	mEq/L
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	5,5 Note 4	mEq/L
Dilution factor:	1		**Calib. By factor:**	No		**Method order:**	6	
Linearity Min:	2	mEq/L	**Num of STD:**	1				

MEASURING RANGE

This method is linear from 2,0 mEq/L (detection limit) to 10,0 mEq/L (linearity limit). If the obtained results are greater than 10,0 mEq/L, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator Specific **(HBC03-S)** for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.
3. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.
4. These values are for serum samples. For plasma, please check the insert for the values.

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Sodium Prec

Mg-Uranylacetate. Colorimetric. Precipitation

REF	**HB016**
VOL	2 x 60 mL
Standard	1 x 2 mL

REAGENT PREPARATION AND STABILITY

Reagents are ready to use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C. Handle standard very carefully to prevent contamination. Precipitating solution becomes discolored when exposed to the light. Store protected from light. A slight turbidity does not affect the determination. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator Specific **(HBC03-S)** for calibration. Note 2
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls Specific **(HBC01-S, HBC02-S)**. Note 3 Prepare and measure these controls the same as samples. Measure at least one replicate per control. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: serum or ammonium or lithium heparin plasma

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

PRECIPITATION STEP:	
For Blank	-
For Standard Note 2	20 µL Standard + 1,0 mL Reagent 2
For Sample	20 µL Sample + 1,0 mL Reagent 2
Mix well. Incubate for 5 min. Then shake intensively for at least 30 sec. Then incubate for 30 min. Centrifuge for 5-10 min at 5000 rpm. Collect the supernatant in a new test tube	
TEST STEP: pipette into a cuvette:	
For Blank	20 µL Reagent 2 + 1,0 mL Reagent 1
For Standard	20 µL Supernatant + 1,0 mL Reagent 1
For Sample	20 µL Supernatant + 1,0 mL Reagent 1

You can prepare several samples simultaneously. Mix and incubate for 5 minutes at 15-25 °C (room temperature). After the incubation time, aspirate and measure the samples within 30 minutes after preparation.

PROGRAM SETUP

Prog. Name:	SOD		**Linearity Max:**	300	mEq/L	**STD variable:**	Yes Note 2	
Prog. ID:	27		**Fit:**	0		**Standard Conc.:**	value: see vial Note 2	
Prog. Version:	3		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	27		**Working reagent:**	No		**CAL CV%:**	0	
Method Name:	Sodium		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	405	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	Yes		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	135	mEq/L
Prog. Unit:	mEq/L		**Blank CV%:**	0		**Normal High - Male**	155	mEq/L
Decimals:	0		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	135	mEq/L
Aspiration Volume:	0800	µL	**Blank High:**	3,500 Note 1		**Normal High - Female**	155	mEq/L
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	135	mEq/L
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	155	mEq/L
Dilution factor:	1		**Calib. By factor:**	No Note 2		**Method order:**	7	
Linearity Min:	49	mEq/L	**Num of STD:**	1				

MEASURING RANGE

This method is linear from 49 mEq/L (detection limit) to 300 mEq/L (linearity limit). If the obtained results are greater than 300 mEq/L, dilute the sample 1:2 with distilled water, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator Specific **(HBC03-S)** for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.
3. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.

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Total Protein

Biuret. Colorimetric

REF	HB0190	HB0190A	HB0190M
VOL	2 x 125 mL	8 x 125 mL	8 x 30 mL
Standard	1 x 5 mL	4 x 5 mL	-

REAGENT PREPARATION AND STABILITY

The reagent and standard are ready for use.

All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C.

Handle standard very carefully to prevent contamination.The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 546 nm ≥ 0,22, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator (HBC03) for calibration. Note 2

Control sera are recommended to monitor the performance of assay procedures. Use Biochemistry Normal and Pathological Controls (**HBC01, HBC02**). The control values can be found on the control sheets, delivered together with the control vials. Prepare and measure these controls the same as samples.

If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Serum or heparinized plasma: stability: 1 month at 2-8 °C

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank	1 mL R1 Biuret
For Standard Note 2	25 µL Standard + 1 mL R1 Biuret
For Sample	25 µL Sample + 1 mL R1 Biuret

You can prepare several samples simultaneously. Mix and incubate for 5 minutes at 37 °C or for 10 minutes at 15-25 °C (room temperature). After the incubation time, aspirate and measure the samples within 1 hour after preparation.

PROGRAM SETUP

Prog. Name:	TP		**Linearity Max:**	15	g/dL	**STD variable:**	Yes Note 2	
Prog. ID:	28		**Fit:**	0		**Standard Conc.:**	value: see vial Note 2	
Prog. Version:	1		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	29		**Working reagent:**	No		**CAL CV%:**	0	
Method Name:	Tot Prot (Bior)		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	546	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	Yes		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	6,6	g/dL
Prog. Unit:	g/dL		**Blank CV%:**	0		**Normal High - Male**	8,3	g/dL
Decimals:	1		**Blank Low:**	0,000 Note 1		**Normal Low - Female**	6,6	g/dL
Aspiration Volume:	0800	µL	**Blank High:**	0,220 Note 1		**Normal High - Female**	8,3	g/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	6,6	g/dL
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	8,3	g/dL
Dilution factor:	1		**Calib. By factor:**	No		**Method order:**	5	
Linearity Min:	0,008	g/dL	**Num of STD:**	1 Note 2				

MEASURING RANGE

This method is linear from 0,008 g/dL (detection limit) to 15 g/dL (linearity limit). If the obtained results are greater than 15 g/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator (**HBC03**) for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.

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Urine Total Protein

Pyrogallol-Red. Colorimetric.

REF	HB020
VOL	2 x 125 mL
Standard	1 x 5 mL

REAGENT PREPARATION AND STABILITY

The reagents are ready for use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C.
Handle standard very carefully to prevent contamination. The reagent should be a clear solution. If turbidity or precipitation has occurred or if the reagent blanc absorbance is out of range, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit.Note 2
Control sera are recommended to monitor the performance of assay procedures. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Urine 24h: Stability 8 days at 2-8 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank	1 mL Reagent 1
For StandardNote 2	20 µL Standard + 1 mL Reagent 1
For Sample	20 µL Sample + 1 mL Reagent 1

You can prepare several samples simultaneously. Mix and incubate for 5 minutes at 37 °C or for 10 minutes at 15-25 °C (room temperature). After the incubation time, aspirate and measure the samples within 30 minutes after preparation.

PROGRAM SETUP

Prog. Name:	TPU		**Linearity Max:**	400	mg/dL	**STD variable:**	Yes	
Prog. ID:	29		**Fit:**	0		**Standard Conc.:**	value: see vialNote 2	
Prog. Version:	2		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	28		**Working reagent:**	No		**CAL CV%:**	0	
Method Name:	Tot Prot (Pyr)		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	578	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	Yes		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	3		**Normal Low - Male**	0	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	10		**Normal High - Male**	10	mg/dL
Decimals:	0		**Blank Low:**	0,000Note 1		**Normal Low - Female**	0	mg/dL
Aspiration Volume:	0800	µL	**Blank High:**	0,700Note 1		**Normal High - Female**	10	mg/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	0	mg/dL
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	10	mg/dL
Dilution factor:	1		**Calib. By factor:**	No		**Method order:**	6	
Linearity Min:	0,944	mg/dL	**Num of STD:**	1				

MEASURING RANGE

This method is linear from 0,944 mg/dL (detection limit) to 400 mg/dL (linearity limit). If the obtained results are greater than 400 mg/dL, dilute the sample 1:2 with NaCl 9 g/L, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Program the value of the standard (see vial).

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Triglycerides

Enzymatic. Colorimetric. GPO-POD

REF	HBL060	HBL060M
VOL	2 x 125 mL	8 x 30 mL
Standard	1 x 5 mL	-

REAGENT PREPARATION AND STABILITY

The reagent and standard are ready to use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C.
Handle standard very carefully to prevent contamination. The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 510 nm ≥ 0,23, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. Note 2
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls **(HBC01, HBC02)**. Prepare and measure these controls the same as samples. Measure at least one replicate per control. The control values can be found on the control sheets, delivered together with the control vials.
If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: human serum or plasma. The stability of the sample: 5 days at 2-8 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank	1 mL Reagent
For Standard Note 2	10 µL Standard + 1 mL Reagent
For Sample	10 µL Sample + 1 mL Reagent

You can prepare several samples simultaneously. Mix and incubate for 5 minutes at 37 °C or for 10 minutes at 15-25 °C (room temperature). After the incubation time, aspirate and measure the samples within 30 minutes after preparation.

PROGRAM SETUP

Prog. Name:	TRIG		**Linearity Max:**	1000	mg/dL	**STD variable:**	Yes Note 2	
Prog. ID:	30		**Fit:**	0		**Standard Conc.:**	value: see vial Note 2	
Prog. Version:	2		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	30		**Working reagent:**	No		**CAL CV%:**	0	
Method Name:	Triglycerides		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	510	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	Yes		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	40	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	0		**Normal High - Male**	160	mg/dL
Decimals:	0		**Blank Low:**	-0,010 Note 1		**Normal Low - Female**	35	mg/dL
Aspiration Volume:	0800	µL	**Blank High:**	0,230 Note 1		**Normal High - Female**	135	mg/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	35	mg/dL
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	135	mg/dL
Dilution factor:	1		**Calib. By factor:**	No		**Method order:**	0	
Linearity Min:	1,01	mg/dL	**Num of STD:**	1				

MEASURING RANGE

This method is linear from 1,01 mg/dL (detection limit) to 1000 mg/dL (linearity limit). If the obtained results are greater than 1000 mg/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag.
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.
3. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.

2023-06 (3.0) - Replaces all previous versions

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Uric Acid

Enzymatic. Colorimetric. URICASE-POD

REF	HBL020	HBL020M
VOL	2 x 125 mL	8 x 30 mL
Standard	1 x 5 mL	-

REAGENT PREPARATION AND STABILITY

Mix equal volumes of R1 (Buffer) and R2 (Enzymes). This working reagent is stable for 2 months at 2-8 °C or 2 weeks at room temperature (15-25 °C).
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2-8 °C.
Handle standard very carefully to prevent contamination. The reagents should be clear solutions. If turbidity or precipitation has occurred or if blank absorbance of the working reagent at 510 nm ≥ 0,12, the reagents should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. Note 2
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls **(HBC01, HBC02)**. Note 3 The control values can be found on the control sheets, delivered together with the control vials. Note 4 Prepare and measure these controls the same as samples. Measure at least one replicate per control. If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: **serum or plasma:** stability 3-5 days at 2-8 °C or 6 months at -20 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank	1 mL Working reagent (R1 + R2)
For Standard Note 2	25 µL Standard + 1 mL Working reagent (R1 + R2)
For Sample	25 µL Sample + 1 mL Working reagent (R1 + R2)

You can prepare several samples simultaneously. Mix and incubate for 5 minutes at 37 °C or for 10 minutes at 15-25 °C (room temperature). After the incubation time, aspirate and measure the samples within 45 minutes after preparation.

PROGRAM SETUP

Prog. Name:	UA		**Linearity Max:**	25	mg/dL	**STD variable:**	Yes Note 2	
Prog. ID:	31		**Fit:**	0		**Standard Conc.:**	value: see vial Note 2	
Prog. Version:	4		**Direction:**	Not applicable		**Calibration repeats:**	0	
Method ID:	32		**Working reagent:**	Yes		**CAL CV%:**	0	
Method Name:	Uric Acid		**Blank Type:**	Reagent		**Temp flowcell:**	37	°C
Method Type:	End Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	510	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None	nm	**Blank substraction:**	Yes		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	3,6	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	0		**Normal High - Male**	7,7	mg/dL
Decimals:	2		**Blank Low:**	-0,010 Note 1		**Normal Low - Female**	2,5	mg/dL
Aspiration Volume:	0800	µL	**Blank High:**	0,02 Note 1		**Normal High - Female**	6,8	mg/dL
Delay Time:	001	s	**Blank Mandatory:**	No		**Normal Low - Child**	2,5	mg/dL
Test Time:	003	s	**Factor:**	0		**Normal High - Child**	6,8	mg/dL
Dilution factor:	1		**Calib. By factor:**	No		**Method order:**	0	
Linearity Min:	0,15	mg/dL	**Num of STD:**	1				

MEASURING RANGE

This method is linear from 0,15 mg/dL (detection limit) to 25 mg/dL (linearity limit). If the obtained results are greater than 25 mg/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag. In case the Reagent Blank is too high, see CYANVision User manual § 8 for troubleshooting ("Blank is out of range").
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. Fill the values for monochromatic methods. See CYANVision user manual for instructions to calibrate a test with a calibrator.
3. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.
4. Fill the values for semi-automates (monochromatic).

2023-06 (5.0) - Replaces all previous versions

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REF	HBL030	HBL030M
VOL	240 + 60 mL	6 x 30 + 3 x 15 mL
Standard	1 x 5 mL	-

Urea

Urease-GLDH. UV. Kinetic

REAGENT PREPARATION AND STABILITY

Working reagent: Mix 4 volumes of R1 (Buffer) with 1 volume of R2 (Substrate). After mixing, allow to stand for 30 minutes prior to use. The working reagent can be stored at 2 – 8 °C or at room temperature (15 – 25 °C) and can be used as long as the blank absorbance is < 0,90 AU. The stability of the working reagent is at least 24h at 15 - 25 °C. The standard is ready to use.
All the components of the kit are stable up to the date of expiration as specified on the label, when stored tightly closed, protected from light and contaminations prevented during their use. Storage temperature for this kit is 2 - 8 °C.
Handle standard very carefully to prevent contamination. The reagent should be a clear solution. If turbidity or precipitation has occurred or if blank absorbance at 340 nm ≤ 0,90 AU, the reagent should be discarded. Note 1

CALIBRATION & QUALITY CONTROL

For calibration, use the standard included in the kit. Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. Note 2
Quality Control is recommended for the qualification of the reagents and to monitor the performance of assay procedures. Next to legal requirements, we recommend to perform Quality Control on a daily basis and after each calibration. Use Biochemistry Normal and Pathological Controls **(HBC01, HBC02)**. Note 3 The control values can be found on the control sheets, delivered together with the control vials. Prepare and measure these controls the same as samples. Measure at least one replicate per control. If control values are found outside the defined range, check the instrument, reagents and calibrator for problems. Do not continue testing as the results will be invalid. Each laboratory should establish its own QC scheme and corrective actions if controls do not meet the acceptable tolerances.

SAMPLES

Sample type: human serum or plasma : do not use ammonium salts or fluoride as anticoagulants. Stability of samples: 7 days at 4 - 25 °C.

PROCEDURE

Make sure the reagents and samples are at room temperature. Then, pipette into a test tube:

For Blank	1,00 mL Working reagent (R1 + R2)
For Standard Note 2	10 µL Standard + 1,00 mL Working reagent (R1 + R2)
For Sample	10 µL Sample + 1,00 mL Working reagent (R1 + R2)

Prepare, mix and measure **one sample at a time**. **Aspirate** the mixture in the instrument, **immediately** after addition of the working solution to the sample/calibrator. Wait with the preparation of the next sample until the instrument is finished with measuring the previous one. At this time, the instrument asks to aspirate the sample. Note 4

PROGRAM SETUP

Prog. Name:	UREAn		**Linearity Max:**	206	mg/dL	**STD variable:**	Yes Note 2	
Prog. ID:	33		**Fit:**	0		**Standard Conc.:**	value: see vial Note 2	
Prog. Version:	2		**Direction:**	Down		**Calibration repeats:**	3	
Method ID:	31		**Working reagent:**	Yes		**CAL CV%:**	10	
Method Name:	Urease - GLDH		**Blank Type:**	Reagent Note 1		**Temp flowcell:**	37	°C
Method Type:	Two Point		**Sample Blank:**	No		**Calib. Mandatory:**	No	
Main Filter:	340	nm	**VCF:**	1		**Control Mandatory:**	No	
Sub Filter:	None		**Blank substraction:**	No		**SampleTypeRefValue:**	Serum	
Bichromatic Factor:	0		**Num of Blank:**	1		**Normal Low - Male**	15	mg/dL
Prog. Unit:	mg/dL		**Blank CV%:**	0		**Normal High - Male**	45	mg/dL
Decimals:	0		**Blank Low:**	0,9 Note 1		**Normal Low - Female**	15	mg/dL
Aspiration Volume:	0800	µL	**Blank High:**	2,5000 Note 1		**Normal High - Female**	45	mg/dL
Delay Time:	030	s	**Blank Mandatory:**	Yes		**Normal Low - Child**	15	mg/dL
Test Time:	060	s	**Factor:**	0		**Normal High - Child**	45	mg/dL
Dilution factor:	1		**Calib. By factor:**	No		**Method order:**	0	
Linearity Min:	3,16	mg/dL	**Num of STD:**	1				

MEASURING RANGE

This method is linear from 3,16 mg/dL (detection limit) to 206 mg/dL (linearity limit). If the obtained results are greater than 206 mg/dL, dilute the sample 1:2 with saline solution, repeat the determination, and multiply the result by factor 2.

NOTES

1. If the blank absorbance is out of range, the instrument will give you a flag. Programming reagent as blank gives you the advantage that deterioration of the reagent can be easily detected.
2. Program the value of the standard (see vial). Alternatively, you can use the Biochemistry Calibrator **(HBC03)** for calibration. See CYANVision user manual for instructions to calibrate a test with a calibrator.
3. If other controls (not manufactured by Cypress Diagnostics) are used, they have to be validated by the user as they can vary.
4. Carry-over by pathological samples is possible. To prevent this, we recommend to follow a sample with concentration >50 mg/dL by aspiration of 0,8 mL Reagent Blank (working solution) before proceeding with the next sample.

2023-06 (2.0) - Replaces all previous versions

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DRIFT

PROGRAM SETUP

Prog. Name:	DRIFT		**Num of Blank:**	0	
Prog. ID:	92		**Blank CV%:**	0	
Prog. Version:	2		**Blank Low:**	-0,01	
Method ID:	92		**Blank High:**	0,1	
Method Name:	DRIFT		**Blank Mandatory:**	No	
Method Type:	End Point		**Factor:**	1000	
Main Filter:	340	nm	**Calib. By factor:**	Yes	
Sub Filter:	None		**Num of STD:**	0	
Bichromatic Factor:	0		**STD variable:**	No	
Prog. Unit:	mA		**Standard Conc.:**	0,0000	
Decimals:	4		**Calibration repeats:**	0	
Aspiration Volume:	0800	µL	**CAL CV%:**	0	
Delay Time:	3	s	**Temp flowcell:**	37	°C
Test Time:	3	s	**Calib. Mandatory:**	No	
Dilution factor:	1		**Control Mandatory:**	No	
Linearity Min:	0	mA	**SampleTypeRefValue:**	Serum	
Linearity Max:	3500	mA	**Normal Low - Male**	Not applicable	mA
Fit:	0		**Normal High - Male**	Not applicable	mA
Direction:	Not applicable		**Normal Low - Female**	Not applicable	mA
Working reagent:	No		**Normal High - Female**	Not applicable	mA
Blank Type:	Water		**Normal Low - Child**	Not applicable	mA
Sample Blank:	No		**Normal High - Child**	Not applicable	mA
VCF:	1		**Method order:**	999	
Blank substraction:	Yes				

2021-02 (1.0) - Replaces all previous versions

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CYPRESS DIAGNOSTICS

CY014

English

CYANVision

Biochemistry Platform

Discover how this innovation provides more benefits

ISO 13485:2016

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Cypress Diagnostics

Clinical laboratory specialist for 27 years with 75 million tests sold per year.

27 years of expertise
With 27 years of experience, Cypress Diagnostics is the company to turn to for quality chemistry analyzers and kits. Thanks to all these years of experience, we know the tricks of the trade.

Scientific validity above all
If you choose the Cypress Diagnostics biochemistry platform, you have the guarantee of quality and accurate analyses. We design our solutions according to the strictest standards and regulations to meet your expectations.

Return on investment
After installing your analyzer, our experts will advise you and help you get the most out of your equipment. In the event of a problem, we help you immediately through our local partners.

A supported implementation
Our certified distributors take care of the smallest details for each new project. Your analyzer will be installed, and your team trained.

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CYANVision

Our semi-automated biochemistry analyzer

What do our customers say about the CYANVision?

- *"Structured manipulation similar to working on an automate"*
- *"Stable and trustworthy results"*
- *"Compact and robust analyzer"*
- *"No more stress for reporting biochemistry results"*
- *"Convenience in the patient follow-up"*

The external screen and its advantages

Did you know that an integrated 7-inch touch screen of reasonable quality and resolution with associated electronics costs as much if not more than a 23-inch computer screen?
This is the reason why we opted to work with an external computer screen.

Without the heat emitted by the built-in display, there is no need for a fan for cooling.
Without a fan, there is no dust aspiration and therefore no dirt deposit on the optical filters with these harmful consequences.

Working with an external computer screen offers you many advantages: :

- A larger screen
- More value for the same budget
- More convenience of use
- Increased durability of the optical system
- Less power consumption
- Fewer technical interventions

Clever, right ?

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The incubator is optional
Cypress Diagnostics biochemistry kits do not require external incubation. There is therefore no need nor advantage to include an incubator in the analyzer.
If you wish, we can offer you the CL017 dry incubator.

The hydraulic system is ultra-short and directly accessible
By design, we simplified the CYANVision to be more robust. Small tricks like an ultra-short and directly accessible hydraulic system, increase the detectability of complications and reduce cross-contamination.
Here's how to kill two birds with one stone!

Light-emitting diodes (LEDs) as a light source
The CYANVision works with light-emitting diodes (LEDs), not with a conventional halogen lamp!
This design choice offers many advantages.
LEDs are more energy efficient and reach their maximum intensity instantly. This property allows the LEDs to be turned on just before the test and turned off immediately after. The consumption of LEDs must therefore be expressed in tests.
The CYANVision can perform 100 000 tests without the costs for lamp replacement.

Software

Software is at the heart of our value proposition.
Unique, intuitive, clear and informative, it is a real element of differentiation from the competition.

The functionality of the CYANVision software must be compared with that of a good biochemistry analyzer.

The software allows to

- Structure the information (worklist, test sequencing suggestions, prioritize emergencies...)
- Standardize the testing process in accordance with the accreditation requirements. For example, the CYANVision will ask to do or redo the auto-zero, blank or calibration when reaching certain predefined thresholds.
- Guide the user during the tests. The CYANVision suggests and encourages steps beneficial to accuracy and precision. On the other hand, the CYANVision detects and reports deviations with alerts, graphs, and measurement ranges. This process increases the scientific validity of your work.

Savings

The CYANVision is designed to provide an operational life of over 100 000 tests. As such, the impact of CYANVision is expressed in cents per test.
The simplicity of the required maintenance allows the user to carry out most of the tasks. The CYANVision has a unique washing solution, available at a reasonable price.

The CYANVision produces better financial results.
Investment is limited. It is approximately equivalent to your billing for 1500 glucose tests to your patients. The CYANVision makes a very positive contribution to your institution.

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Discover the CYANVision

→ Technical specifications,
frequently asked questions, videos, ...

Basic


Plus


Extra

Our offer

	Basic	Plus	Extra
CYANVision	✔	✔	✔
23 inch screen		✔	✔
Keyboard			✔
Mouse			✔
CL017 Dry incubator			✔
Order code	CY014	CY014+	CY014++

Contact:
E-mail: cypress@diagnostics.be
Tel: + 32 (0)15 67 67 68
Nijverheidsstraat 8
2235 Hulshout
Belgium

URL: www.diagnostics.be

Your distributor

CYANVision EN
Release date 2022-07-19

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Key figures

Distinctive features

- Test counter
- LIS Connectivity
- Reference detector
- External HDMI display
- Light emitting diodes (LEDs)
- Multiple reference ranges
- Patient report
- Scanning of control values and calibration
- Memory for 100 000 results

Methods

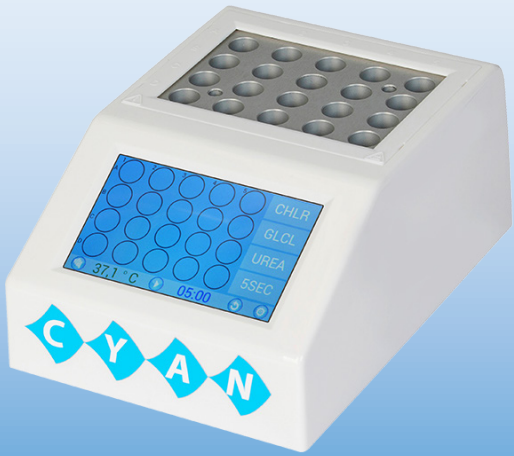
- 31 from Cypress Diagnostics
- 100 free choice

Hydraulic system

- Ultra-short
- 1 peristaltic pump
- Fully visible
- Minimum volume of 500 µL per test

Optical system

- 100 000 tests without lamp replacement
- 8 LEDs on board
- Wavelengths: 340, 405, 450, 510, 546, 578, 620 & 670 nm



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Test platform

CE

Code	Name	Pack. - Cond.	Test per kit
HB0010	Albumin	2 x 125 mL	250
HB0010M	Albumin	8 x 30 mL	240
HB0020	Bilirubin Total & Direct	2 x 125 mL	2 x 166
HB0030	Calcium	2 x 125 mL	250
HB0030M	Calcium	8 x 30 mL	240
HB005	Chloride	2 x 125 mL	250
HB0080	Creatinine	2 x 125 mL	250
HB0080M	Creatinine	8 x 30 mL	240
HB011	Hemoglobin	4 x 5 mL	400
HB012	Iron	4 x 50 mL	200
HB014	Phosphorus	2 x 125 mL	250
HB015	Potassium - Prec	2 x 50 mL	100
HB016	Sodium - Prec	60 mL	60
HB0190	Total Protein	2 x 125 mL	250
HB0190M	Total Protein	8 x 30 mL	240
HB020	Urine Total Protein	2 x 125 mL	250
HB0260	Bilirubin Direct	2 x 125 mL	333
HB0270	Bilirubin Total	2 x 125 mL	333
HB0320	Magnesium	2 x 125 mL	250
HB0320M	Magnesium	8 x 30 mL	240
HBE01	Acid Phosphatase	18 x 2 mL	36
HBE03	α-Amylase	20 x 2 mL	40
HBE09	Lipase	4 x 10 mL	40
HBE12	Alkaline Phosphatase	60 + 15 mL	75

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Code	Name	Pack. - Cond.	Test per kit
HBEL010	GOT (AST)	240 + 60 mL	300
HBEL010M	GOT (AST)	6 x 30 + 3 x 15 mL	225
HBEL020	GPT (ALT)	240 + 60 mL	300
HBEL020M	GPT (ALT)	6 x 30 + 3 x 15 mL	225
HBEL03	Creatine Kinase NAC	60 + 15 mL	75
HBEL04	Lactate Dehydrogenase	240 + 60 mL	160
HBEL041	Lactate Dehydrogenase	60 + 15 mL	83
HBEL05	Creatine Kinase MB	60 + 15 mL	75
HBEL06	γ-GT	240 + 60 mL	300
HBEL061	γ-GT	60 + 15 mL	75
HBL010	Cholesterol	2 x 125 mL	250
HBL010M	Cholesterol	8 x 30 mL	240
HBL011	Cholesterol HDL	120 + 40 mL	160
HBL012	Cholesterol LDL	120 + 40 mL	160
HBL020	Uric Acid	2 x 125 mL	250
HBL020M	Uric Acid	8 x 30 mL	240
HBL030	Urea	240 + 60 mL	200
HBL04	Glucose	2 x 125 mL	250
HBL04M	Glucose	8 x 30 mL	240
HBL060	Triglycerides	2 x 125 mL	250
HBL060M	Triglycerides	8 x 30 mL	240
HT001	HbA1c Turbi	30 + 10 mL	69

An attractive solution

Performance

- Capacity
- Startup
- Training
- Software
- Assistance
- Emergencies

Reputation

- Accreditation
- Alerts
- Availability
- Reliability
- Clear and attractive reports
- Scientific validity

Management

- Continuity
- Control
- Durability
- Savings
- Financing
- Planning
- Standardization
- Return on investment

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