VIDAS®

- **VIDAS**® is a reliable and easy-to-use automated benchtop immunoanalyzer. Based on the Enzyme Linked Fluorescent Assay (**ELFA**) technology, it provides high quality on-demand test results.

- **Principle of a VIDAS® Assay**

The Solid Phase Receptacle (SPR®) serves as the solid phase as well as the pipetting device for the assay. Reagents for the assay are ready-to-use and predispensed in the sealed reagent strips. All of the assay steps are performed automatically by the instrument. The reaction medium is cycled in and out of the SPR® several times.

Unbound components are eliminated during the washing steps. During the final detection step,

the substrate (4-Methyl-umbelliferyl phosphate) is cycled in and out of the SPR®. The conjugate enzyme catalyzes the hydrolysis of this substrate into a fluorescent product (4-Methyl-umbelliferone), the fluorescence of which is measured at 450 nm.

The intensity of the fluorescence depends on the concentration of alkaline phosphatase present on the SPR® that transforms the substrate. At the end of the assay, results are automatically calculated by the instrument. For some tests, two detection steps are performed successively.

For antigen detection, the SPR® is generally coated on the interior with capture antibody or sometimes with a derivative of the analyte. For antibody detection, the SPR® is coated with a capture antigen or antibody directed to the antigen. Depending on the test, the conjugate can be a derivative of the analyte or an antibody labeled with alkaline phosphatase. For more details, refer to the assay package inserts

VIDAS®

3 System Description and Basic Operations

mini VIDAS® analyzer Description

Figure 3-1: *mini VIDAS®* analyzer

1 — Operating status light
2 — SPR® block
3 — Strips section
4 — Strip preparation tray
5 — Keypad and screen
6 — Thermal printer
7 — External bar code reader

Note: Previous versions of the **mini VIDAS®** analyzer may not have a strip preparation tray.

VIDAS®

Because precision helps

VIDAS® instruments, a Customized solution for your daily workload

VIDAS® instruments are bench-top automated immunoassay systems based on ELFA* technology. All VIDAS® instruments are operational 24/7 and use the same reagent references.

They allow you to process several different parameters simultaneously, in both single random access sample and batch test mode, for all types of analyses. Their unique design guarantees that there is no inter-reagent or inter-sample contamination.

miniVIDAS®
12 tests simultaneously
Integrated software and printer
Limited space required due to its compact size
Load and Go

VIDAS®
30 tests simultaneously
Ergonomical and intuitive software

Robust instrument
No daily maintenance
Limited training time

* Enzyme-linked fluorescence assay.

EASY-TO-USE, OPERATIONAL 24/7, JUST LOAD AND GO

Patient ID acquisition & sample distribution
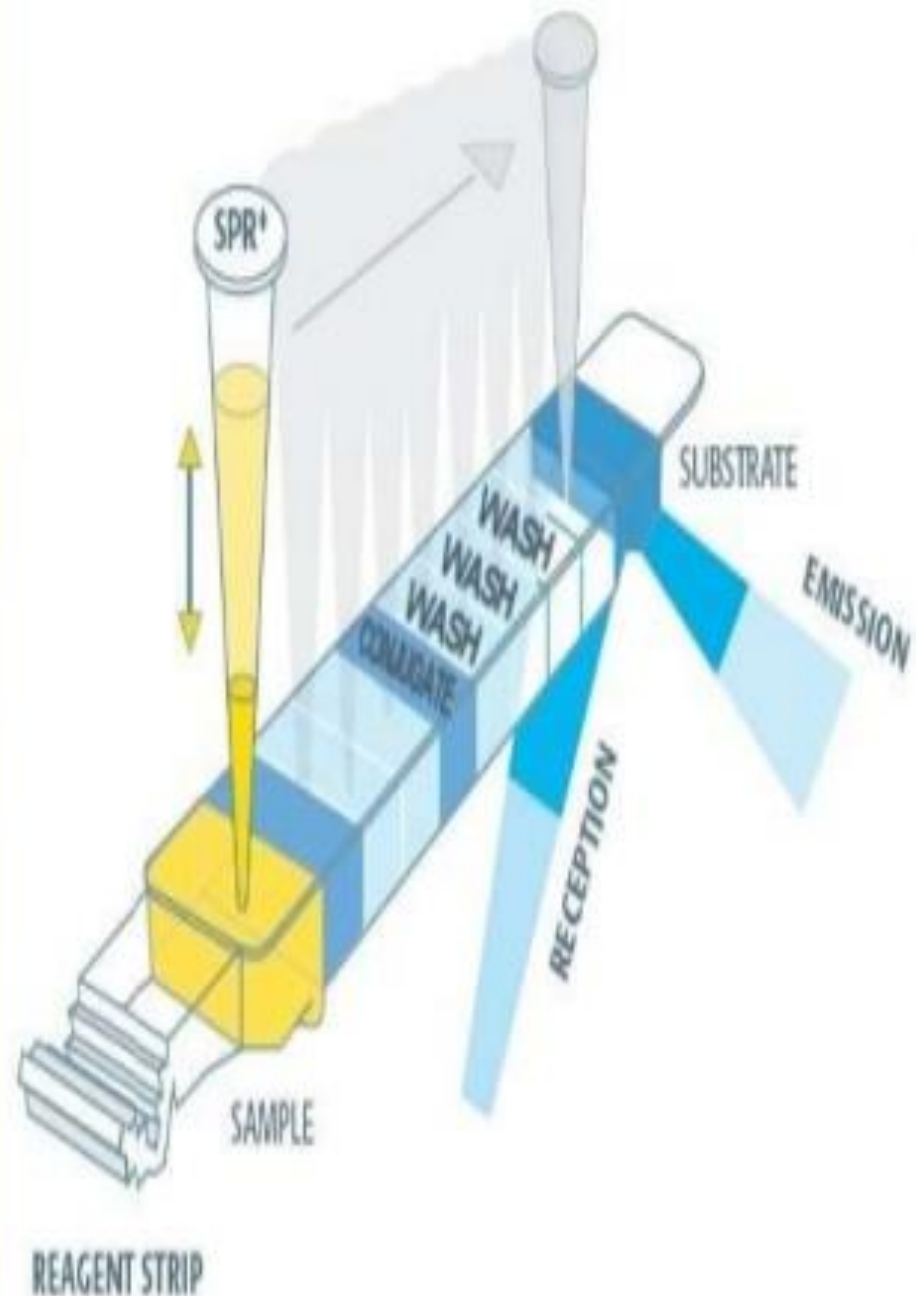
Place SPR® and STRIP into the machine

Press Start key

1- Measuring Principle

The reaction occurs within the interior of the SPR whereby antibodies and conjugate form a sandwich.

(4-MUP) is cycled into SPR and conjugate enzyme catalyses the hydrolysis of the substrate into 4-Methyl-umbelliferone which is measured at 450nm.

SPR*

SUBSTRATE

EMISSION

WASH
WASH
WASH

CONJUGATE

RECEPTION

SAMPLE

REAGENT STRIP

* SPR: Solid Phase Receptacle

The figure below represents a typical label:
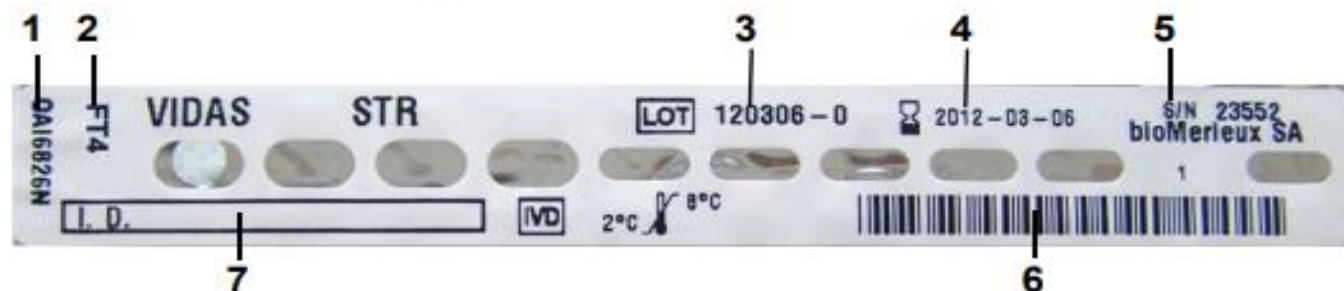

Figure 3-7: Reagent strip label

1 — Alphanumeric bar code.
The first two characters of the alphanumeric code indicate the unique assay code (UAC). If the system is unable to read this code, the alphanumeric form of the bar code is used to enter the bar code.

2 — Assay code
The assay code is based on three or four characters which represent the name of the assay to be performed.
Examples:
RBG = RUB IgG (Immunoassay)
153 = CA 15-3
All references to an assay in the software and on printed reports use the assay code.

3 — Lot number
The lot number is used by the *mini VIDAS*® analyzer to code the expiration date of the reagent lot.

4 — Expiration date
This corresponds to the expiration date of the reagent lot.

When the bar code reader reads this date, the *mini VIDAS*® analyzer compares it to the date stored in its memory to ensure that the lot has not passed its expiration date.

5 — Sequence number
Within a single batch, each reagent tray carries a different number corresponding to the order of manufacture.

6 — Bar code
Read by the internal bar code reader.

7 — ID
Optional: A blank space is provided to write the sample ID (if required).

The SPR® is a plastic (polystyrene) device capable of capturing soluble proteins, viruses and bacteria. It is sealed with a color-coded, barcoded dot perforated in the center. Each SPR® is disposable.

It eliminates cross-contamination between reagent and instrument and reduces maintenance to a minimum since there is no tubing, syringe or sampling needle involved.

Each SPR® for a specific assay is identified by a color-coded dot on which a bar code and a letter and/or digit code representing the assay name are printed.

VIDAS® clinical assays   *VIDAS*® industry assays

Figure 3-8: Solid phase receptacle (SPR®)

The SPR® is the solid phase base for the immunological reaction. Its interior walls are coated with antibody or antigen that captures a target analyte.
The target analyte from the sample binds to the SPR®s interior coating (antibody, antigen, etc.). It is then bound by an enzyme-conjugated antibody or antigen, forming a «sandwich». The immobilized enzyme catalyzes the hydrolysis of the substrate into a fluorescent end product.

- The SPR® is used to pipette samples and reagents and perform the following operations:
- • sampling
- • incubation
- • mixing
- • washing

* SPR : Solid Phase Receptade
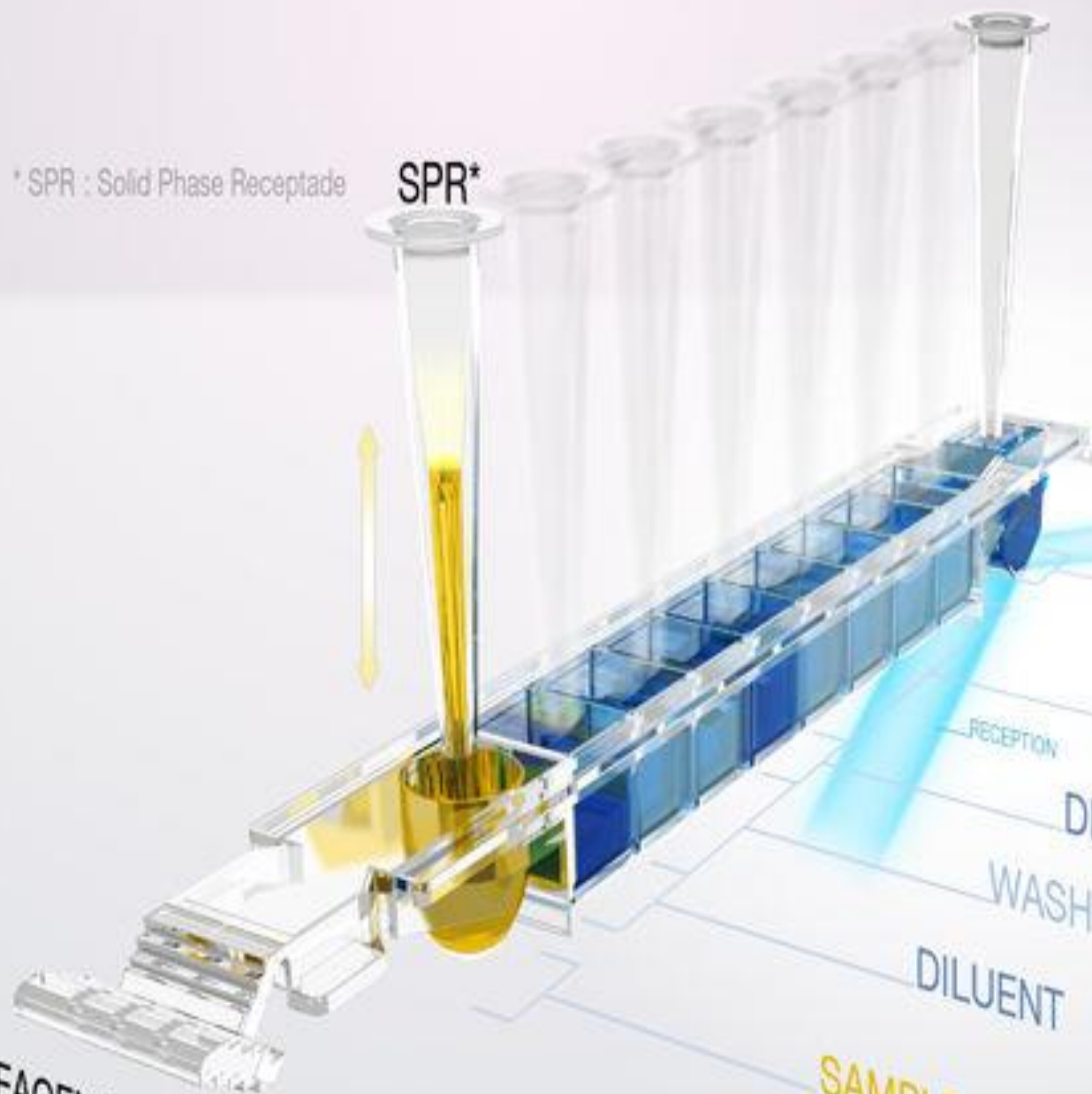
SPR*

EMISSION

SUBSTRATE

RECEPTION

WASHING BUFFER
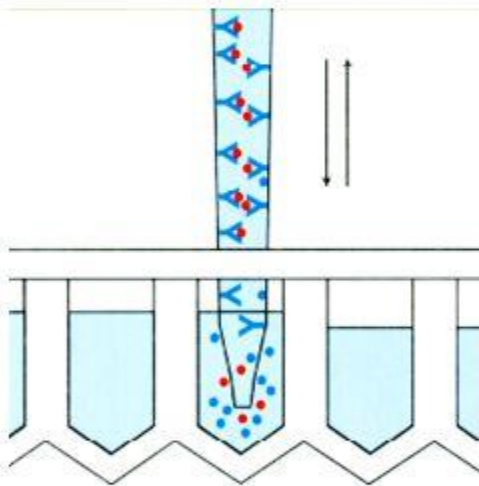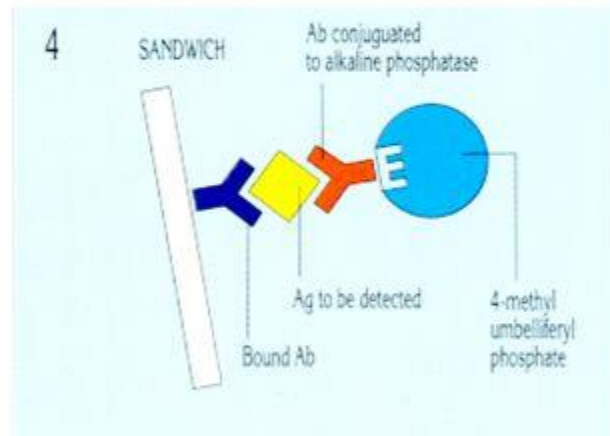
DILUENT

WASHING BUFFER

DILUENT

SAMPLE

REAGENT STRIP
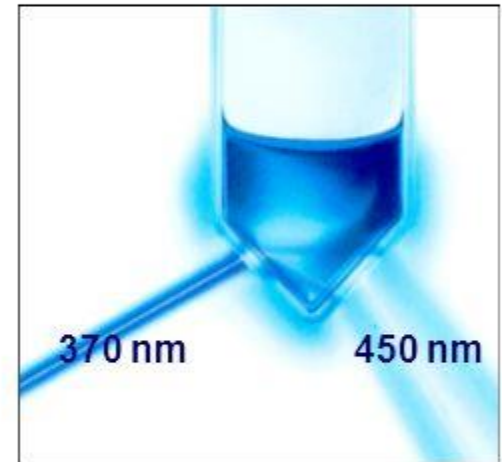
VIDAS Principle

CAPTURE OF ANTIGENS

The antibody captures the target pathogens

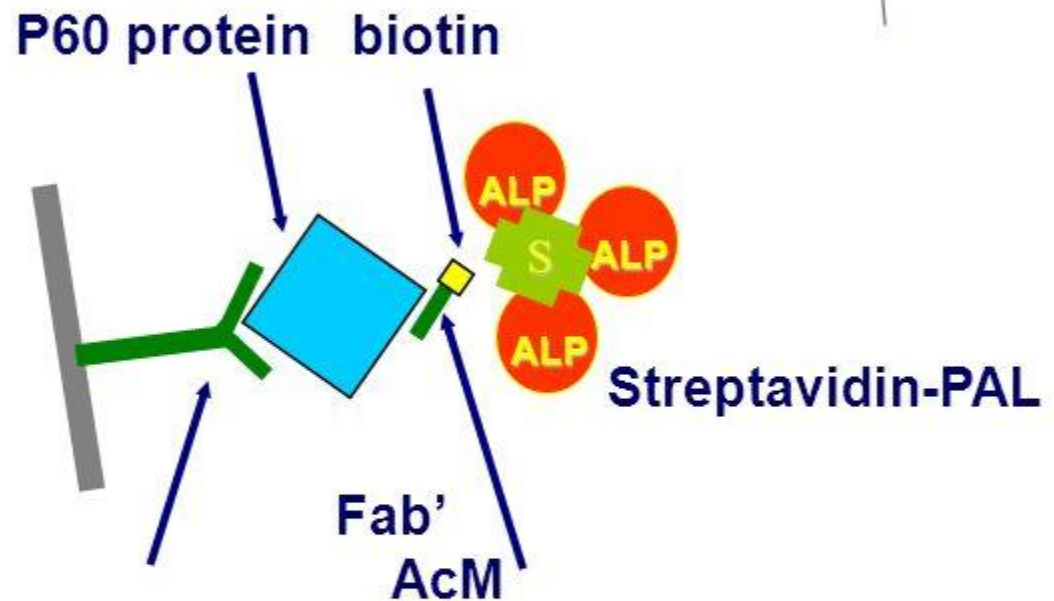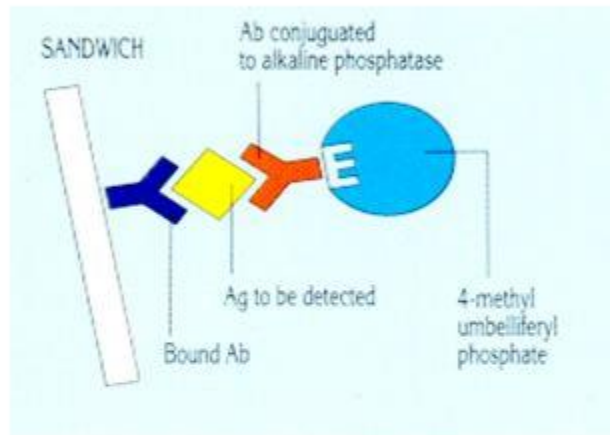## SANDWICH TEST

A second antibody conjugated with an enzyme binds to specific antigens

DETECTION

370 nm   450 nm

The intensity of the reaction is interpreted by the system

Analysis Methods

The *mini VIDAS*® analyzer uses several different methods to calculate results. Three basic categories of analysis methods are:

Calculation method	Description
Test sample to Standard	A comparison of the Relative Fluorescence Value (RFV) of the test sample to that of a standard. This method is used in Single Reagent Strip qualitative and most semi-quantitative assays.
Test sample to Reference	A comparison of the RFV of the test sample to that of a reference. This method is used in Dual Reagent Strip qualitative assays.
Curve Fitting Equations	The RFV of a test sample is mathematically placed on a Calibration Curve. This method is used for all quantitative and some semi-quantitative assays.

Qualitative Assays (Single Reagent Strips)

Two analysis methods are used for single reagent strip qualitative assays: the P/S method and the P-S method.

In these methods, the "P" stands for the RFV of the test sample and the "S" stands for the RFV of a standard.

Assay Calibration

Single reagent strip assays are calibrated using one or two standards/calibrators supplied with the assay kit. Calibration using the standard(s)/calibrator(s) provided in the kit should be run the first time the assay kit lot is used, after the master lot data have been entered.

If replicate standards are run, their values are averaged. The calibration obtained can be used for a programmed period of days.

After that, the software automatically expires the calibration, requiring that you run another one from the same lot.

P/S Method

For assays that use the P/S method, the test value is calculated from the ratio of the sample RFV to that of the standard RFV.

- RFV (tested sample) = 2158

- RFV (standard) = 2177

- Test value (VT) = 2158/2177 = 0.99

P-S Method

For assays that use the P-S method, the test value is calculated from the difference between the sample RFV and the standard RFV.

- RFV (tested sample) = 1774

- RFV (standard) = 1689

- Test value (VT) = 1774 - 1689 = 85

Assay Result

In both the P/S and P-S methods, the result of the assay is determined by comparing the test value to a set of preprogrammed thresholds.

Depending on the assay and the test value result compared to the thresholds, the result can be either positive, equivocal or negative.

For every assay type, there is a high and low threshold value. The assay result is interpreted from the test value as follows:

If the test value is:	the result is:
$\geq$ high threshold	Positive
< high threshold and $\geq$ low threshold	Equivocal
< low threshold	Negative

Note: *For some qualitative assays (e.g. TOXO Competition, anti-HBc total), the result of the test value will be negative if the test value is   to the high threshold.*

Quantitative Assays

Quantitative VIDAS® assays use a calibration curve to determine analyte concentrations in test samples.Note:

Although standards/calibrators can be run after analyses have completed, it is recommended that they be run either before or with analyses from the same assay kit lot. If an assay has two standards/calibrators, both must be run at the same time

Principles Of Calibration / Recalibration

The reagents are calibrated according to two different modes, depending on whether the assays are quantitative or qualitative.

Assay	Description
Quantitative	Calibration is performed at the factory for each new reagent lot and is entered into the instrument using a bar code provided with each reagent kit. This creates a «Master Curve» that is stored in memory. It can be readjusted by running a standard/calibrator. Readjustment of the curve must be validated by testing the control(s) in the kit. Recalibration should be performed every 14 days or 28 days depending on reagents.
Qualitative	The result is interpreted by comparing the «Test Value» to one or two threshold values entered into the **mini VIDAS**® software.

Calibration

Theoretical Principle for Quantitative Assays

Calibration

Theoretical Principle for Quantitative Assays

The principle consists of determining the mathematical equation which represents the calibration curve, i.e. the relationship between the RFV and the concentration of the standards/calibrators.

Well-defined reference solutions (standards) are used to make this determination. This calibration curve is established with at least 5 standards/calibrators. It is valid between zero and the standard/calibrator with the highest titer.

3 mathematical models can be used to establish the master lot curve:

1. 4 logistic parameters or Rodbard model

$$RFV = \frac{a_1 - a_4}{1 + (c / a_3)^{a2}} + a_4$$

2. Polynomial

$$\ln(c) = a_1 + a_2\ RFV + a_3\ RFV^2 + a_4\ RFV^3$$

3. Semi-log

$$RFV = a_1 + a_2\ \ln(c)$$

c represents the concentration.

a_1, a_2, a_3, a_4 are the mathematical parameters of the model. They are recalculated for each calibration.

Principle Applied to the *mini VIDAS*® analyzer

For the *mini VIDAS*® analyzer, calibration is performed during the production of each new lot of SPR®s and reagents. The number of standards/calibrators varies between 5 and 11 depending on the biological assay. Each lot is associated with a particular mathematical model.

To determine the master curve, the standards/calibrators are tested in seven different runs on the same *mini VIDAS*® analyzer. The mean curve of these seven runs becomes the master curve.
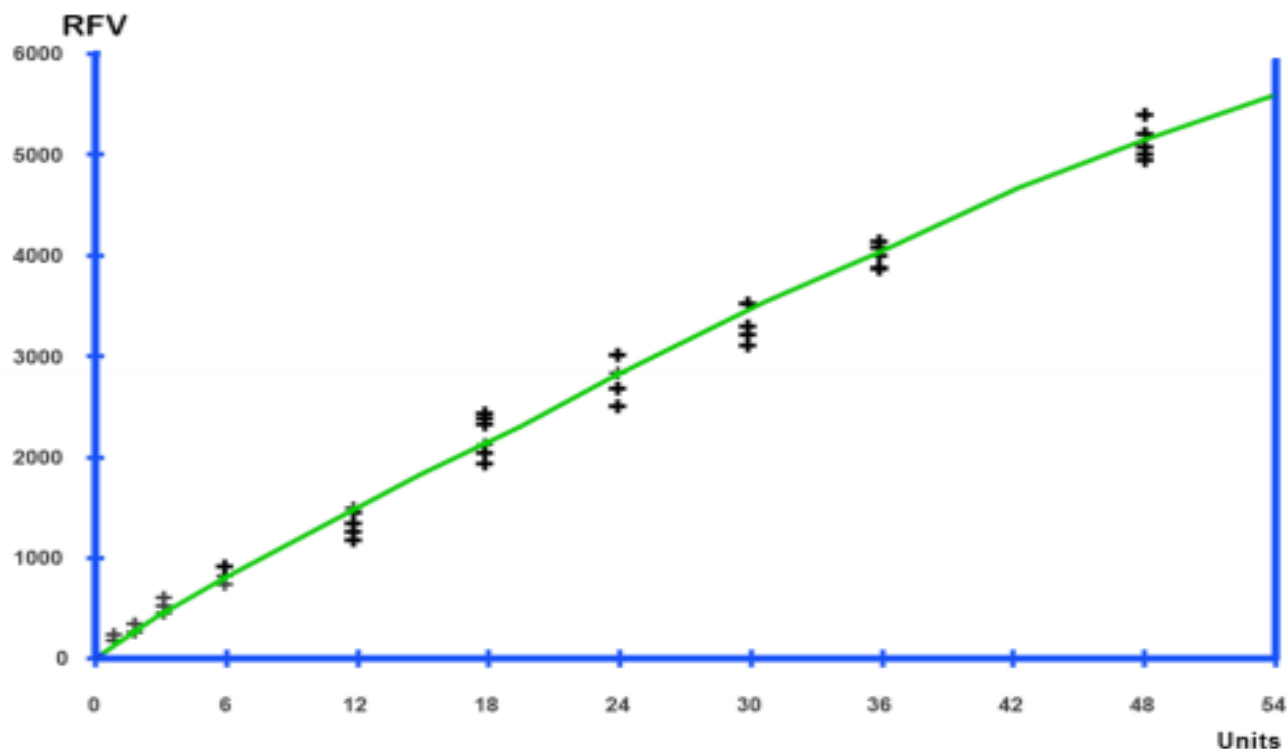

Figure 3-10: Master curve (example)

The master curve is specific for a certain manufacturing lot and biological parameter.

Principle of Use

Upon receipt of a new lot of reagents, the user must enter the master curve (master lot data) using the Master Lot Data (bar code) provided with the kit. The standard/calibrator should then be run to readjust the curve. The controls are tested in the same run to check the recalibration.

Recalibration is valid for 14 days or 28 days depending on reagents, after which, the software requests another calibration.

To avoid any deviation, the master lot curve is the one set in the factory and not the last curve readjusted. The software can perfectly manage simultaneous use of several master curves corresponding to different lots for a given assay.
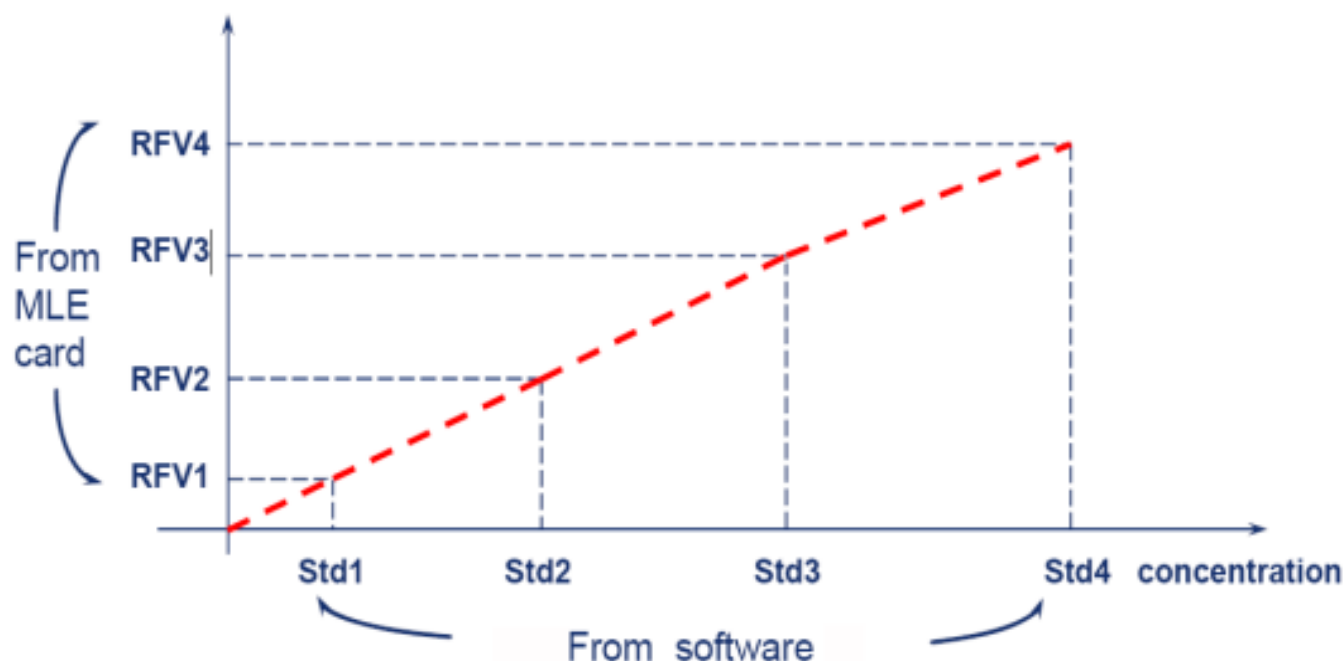

Figure 3-12: Master curves

Establishing the Master Curve

Each kit includes the master curve in the form of:

- an MLE bar code printed on the reagent kit label,
- an MLE card provided in the reagent kit (for certain assays).

The bar code contains the following information:

- 4 RFV levels, corresponding to 4 standards defined in the software. The master curve is restored using 4 points. The levels of concentration of these 4 standards are known to the *mini VIDAS*® software and are specific for each assay.

  The *mini VIDAS*® software replots the total curve using the 4 pairs of concentrations and RFVs (master lot data).

The remaining information includes:

- the assay code,
- the kit lot number (SPR®s and reagents). It is used to link the master curve data to the strip lot number,
- mathematical model used to establish the master curve
  (7: Rodbard, 8: Polynomial, 9: Semilog),
- the dose value for the standard (recalibrator) which is essential for calculating the correction factor. This value may vary slightly from one lot to another,
- range values for the controls in the kit,
- range values for the standard's RFV,
- maximum variation coefficient of the standard's RFV duplicates or triplicates.
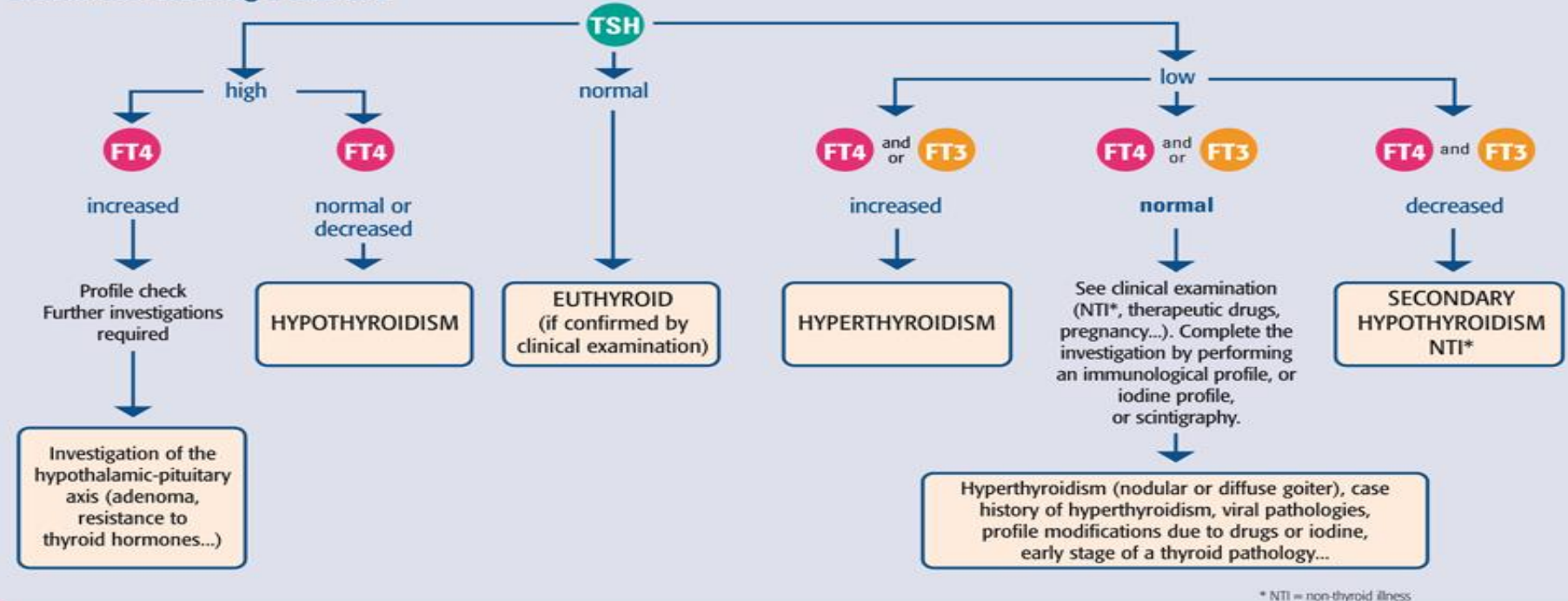
All these data are specific to an assay and a given lot.

The standard/calibrator must be identified by S1 or S2 (e.g. HBET) or S1 and S2 (e.g.TSH3).

Calibration should be performed each time a new lot is opened (after master lot data have been entered), and every 14 or 28 days, depending on the reagent.
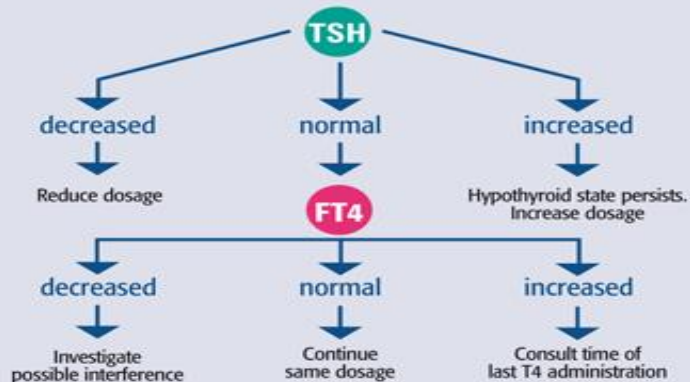
Initial biological investigation of thyroid disorders
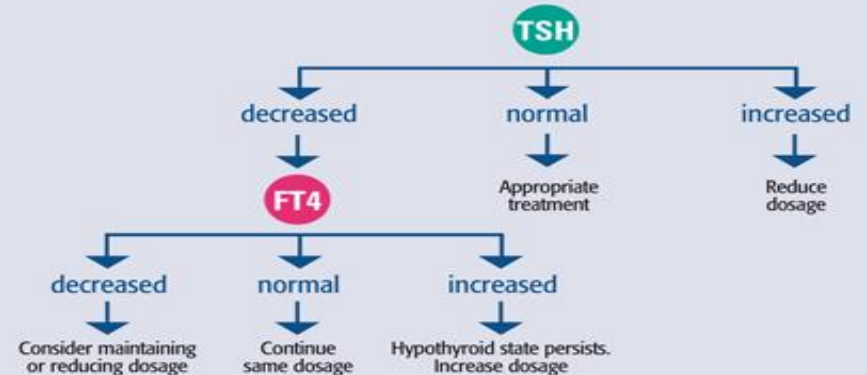
Patient not receiving treatment

TSH

high

FT4 → increased → Profile check Further investigations required → Investigation of the hypothalamic-pituitary axis (adenoma, resistance to thyroid hormones...)

FT4 → normal or decreased → **HYPOTHYROIDISM**

normal

→ **EUTHYROID** (if confirmed by clinical examination)

low

FT4 and or **FT3** → increased → **HYPERTHYROIDISM**

FT4 and or **FT3** → **normal** → See clinical examination (NTI*, therapeutic drugs, pregnancy...). Complete the investigation by performing an immunological profile, or iodine profile, or scintigraphy. → Hyperthyroidism (nodular or diffuse goiter), case history of hyperthyroidism, viral pathologies, profile modifications due to drugs or iodine, early stage of a thyroid pathology...

FT4 and **FT3** → decreased → **SECONDARY HYPOTHYROIDISM NTI***

* NTI = non-thyroid illness

Biological monitoring*

Patients treated with thyroxin as a substitute

TSH

decreased → Reduce dosage

normal → **FT4**
- decreased → Investigate possible interference
- normal → Continue same dosage
- increased → Consult time of last T4 administration

increased → Hypothyroid state persists. Increase dosage

Patients treated with synthetic anti-thyroid drugs

TSH

decreased → **FT4**
- decreased → Consider maintaining or reducing dosage
- normal → Continue same dosage
- increased → Hypothyroid state persists. Increase dosage

normal → Appropriate treatment

increased → Reduce dosage

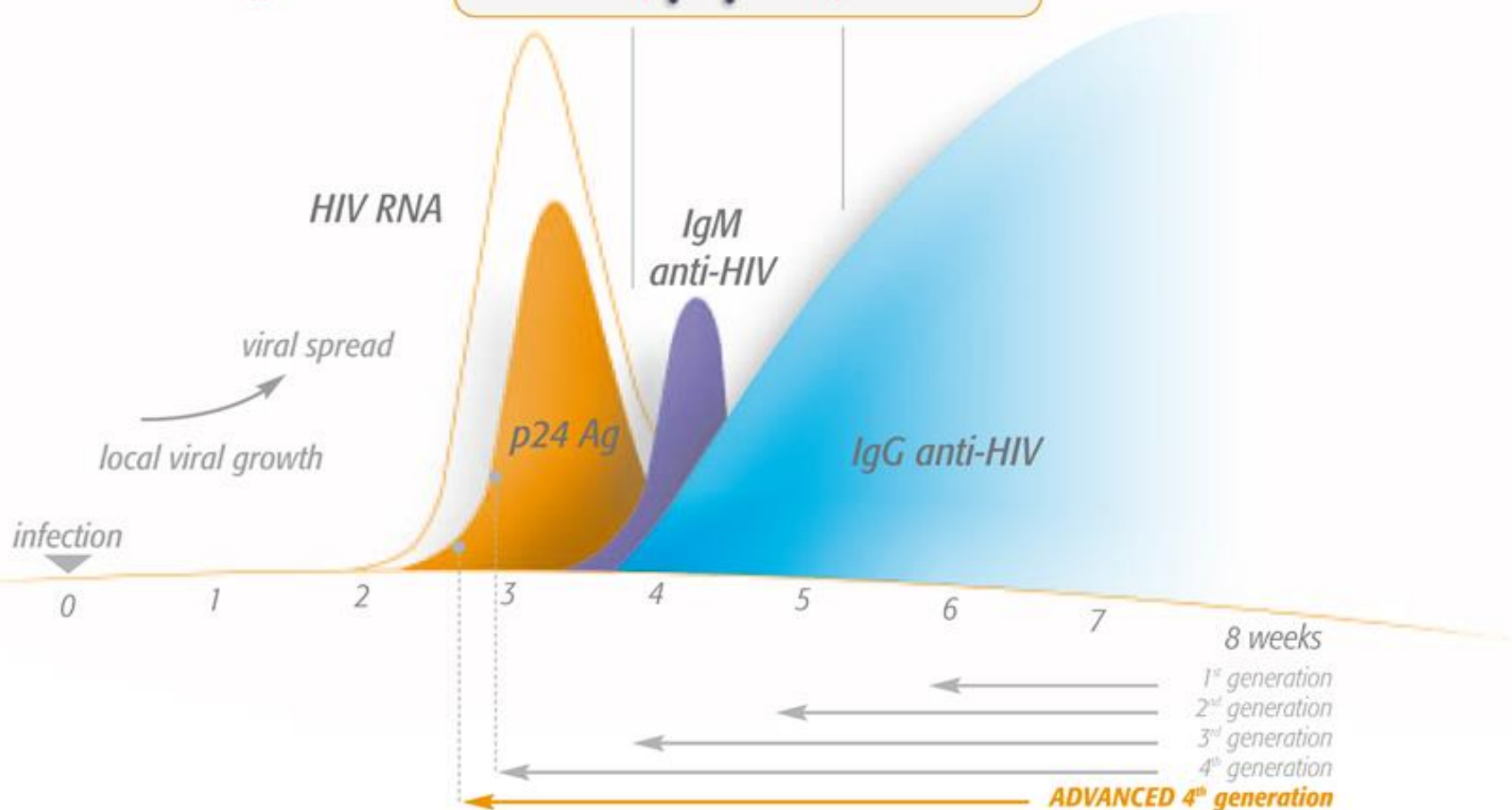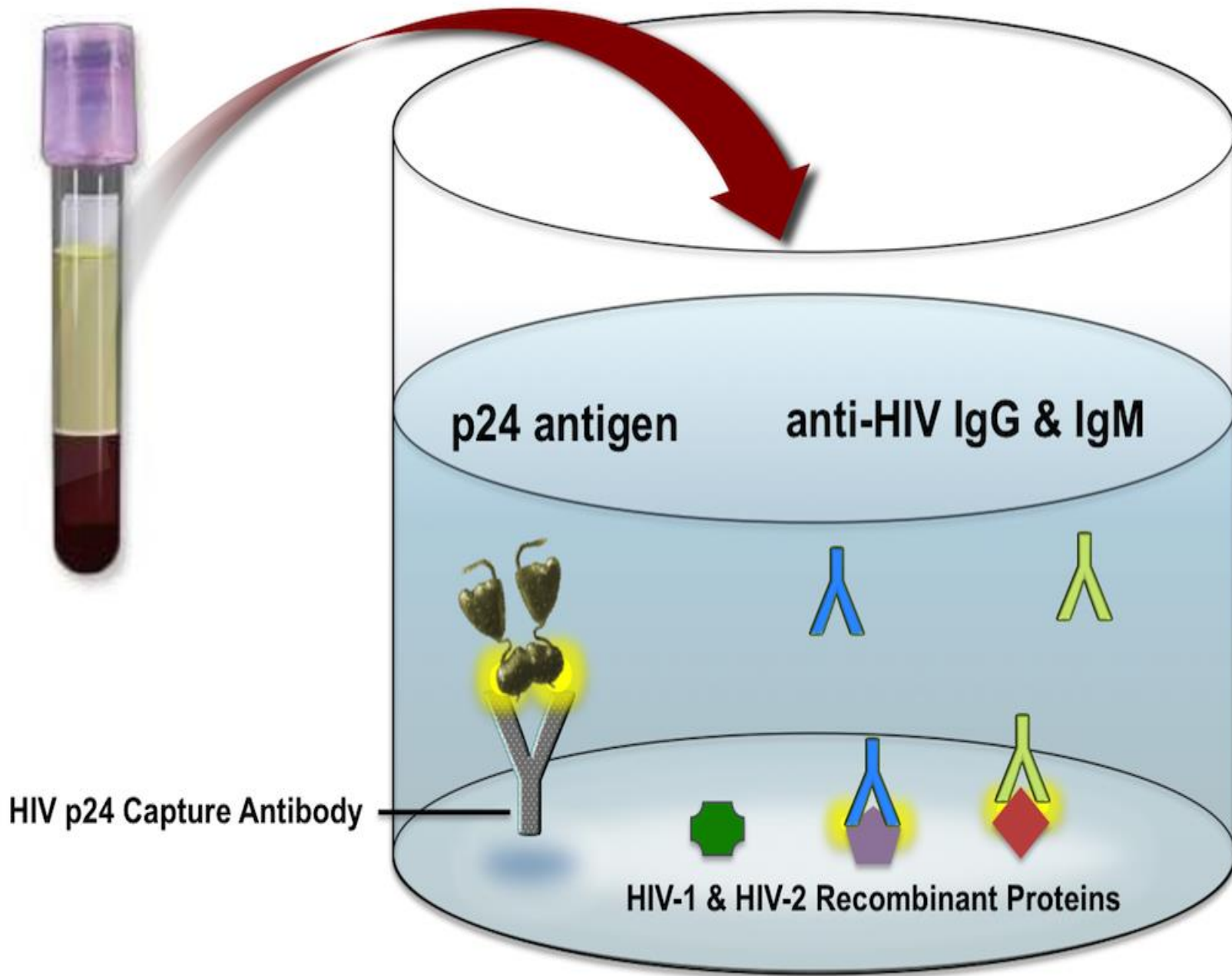* A considerable time period (at least 2 to 3 weeks) should separate the biological follow-up from the initiation or modification of treatment.
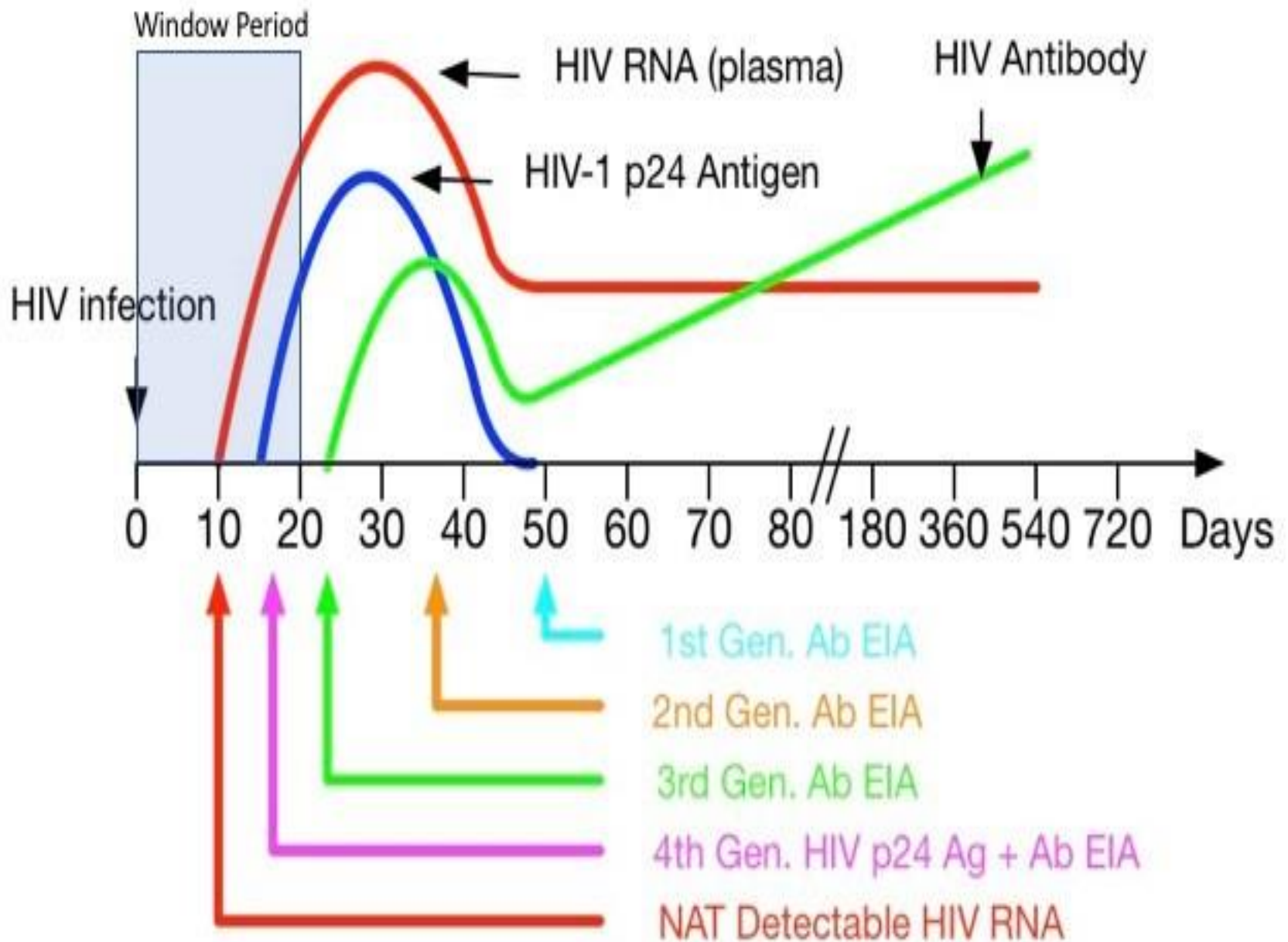
Two-step indirect sandwich assay format
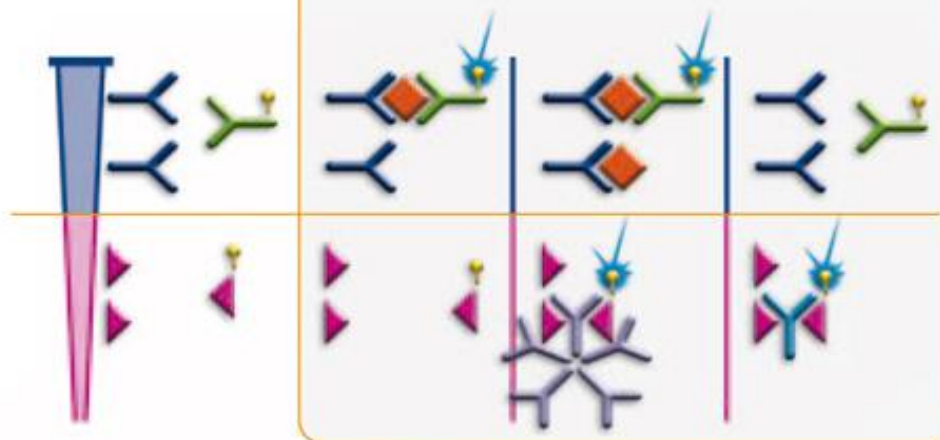
Monoclonal antibodies anti-p24

Synthesized peptides to capture HIV-1, 2+0 antibodies

Biotinylated p24 polyclonal antibodies

Biotinylated antigens

p24 Ag in the sample

Patient antibodies in the sample

HIV RNA

IgM anti-HIV

viral spread

local viral growth

p24 Ag

IgG anti-HIV

infection

0   1   2   3   4   5   6   7

8 weeks

1st generation
2nd generation
3rd generation
4th generation
ADVANCED 4th generation

p24 antigen   anti-HIV IgG & IgM

HIV p24 Capture Antibody

HIV-1 & HIV-2 Recombinant Proteins

Window Period

HIV RNA (plasma)

HIV Antibody

HIV-1 p24 Antigen

HIV infection

0 10 20 30 40 50 60 70 80 180 360 540 720 Days

1st Gen. Ab EIA

2nd Gen. Ab EIA

3rd Gen. Ab EIA

4th Gen. HIV p24 Ag + Ab EIA

NAT Detectable HIV RNA

کنترل کیفی داخلی دستگاه وایداس در یک آزمایشگاه فرضی

1- برای تستهای پر تکرار استفاده از کنترل داخلی کیت هر **15** روز یکبار ، تستهای کم تکرار ماهی یکبار انجام شود .

2- برای کنترل کیفی دستگاه وایداس از کیت **QVC** به صورت ماهیانه استفاده شده و نتایج به شرکت فرداور برای تایید ارسال می شود

منابع خطا در سیستم ایمونوانالایزر وایداس

خطا های مرتبط با ویداس دو دسته است:

1- مواردی که دستگاه با وجود خطا ران شده و جواب اشتباه از دستگاه ویداس خارج می گردد (اهمیت بسیار ویژه دارند)

2- مواردی که دستگاه تا زمان رفع خطا ران نمی شود و جواب خارج نمی شود

1- نریختن سرم داخل استریپ توسط اپراتور

رفع خطا :

قبل اوت کردن استریپ ها از وجود سرم داخل استریپ مطمین
شویم / باقی گذاشتن نوک سمپلر داخل لوله های سرم پس از ریختن سرم

2- نگذاشتنSPRبرای تست مورد نظر

رفع خطا :

بعد از اتمام تست درب سکشن های دستگاه را باز کرده و از وجود اس پی ار مطمین شوید
قبل از اوت کردن استریپ ها از سوراخ شدن انها توسط اس پی ار مطمین شوید

3- عدم تطابقSPRبا استریپ

جابجا نکردن اس پی ار یک تست یا اس پی ار استریپ تست دیگر

رفع خطا :

چک کردن استریپ با اس پی ار همان تست در زمان ران تست و یا قبل از اوت کردن

4- خطای تزریق حجم ناکافی سرم در استریپ

در این نوع خطا به جای 100 لاندا مپلا 80 لاندا در استریپ تزریق می گردد و جواب
نادرست از سیستم خارج می شود

1- توجه نکردن به لات نامبر جدید کیت ویداس و بروز خطای کالیبراسیون

در این حالت دستگاه خطا کالیبراسیون مجدد یا ری کال اعلام می نماید و نبایست تست ران شود

خطای Recal را نبایستی با خطای old standard اشتباه گرفت

رفع خطا :

قبل ران کردن کیت جدید باید از اینکه شماره سریال (لات نامبر) کیت مورد نظر روی دستگاه ران شده اطمینان حاصل کرد

دستگاه بعد از ران کردن لات نامبر جدید (بدون اینکه کالیبر شود) هیچ جوابی به شما نمی دهد و پیغام زیر رادر پرینت جواب چاپ می نماید NOstandard for this lot

2- ران کردن تست روی دستگاه ویداس دوم

این خطا برای مراکزی است که بیش از یک دستگاه ویداس دارند و به اشتباه تستی که روی دستگاه ویداس یک 1ران شده توسط ویداس 2 استارت می شود

در این حالت دستگاه خطا کالیبراسیون مجدد یا ری کال اعلام می نماید و نبایست تست ران شود

خطای Recal را نبایستی با خطای old standard اشتباه گرفت

رفع خطا :

در صورت شک داشتن اپراتور حتما قبل از ران کردن تست از منوی چک کند

روی هر دستگاه فقط یک گروه تست خاص و غیر تکراری ران شود

روی دستگاه ها شماره بخورد و روی هر جعبه کیت های ویداس نوع و شماره دستگاه مشخص باشد

دستگاه بعد از ران کردن لات نامبر جدید (بدون اینکه کالیبر شود) هیچ جوابی به شما نمی دهد و پیغام زیر رادر پرینت جواب چاپ می نماید NOstandard for this lot

3- اعمال نکردن ضریب رقت در قسمت دایلوشن دستگاه ویداس (برای تست هایی نظیر بتا ساب یونیت که نیاز به رقت دارد)

رفع خطا : درج ضریب رقت روی لوله اصلی

نگهداری لوله رقیق شده تا پایان ران کاری

نکته : در صورت فراموشی اعمال ضریب رقت جواب را به صورت دستی بایست به ضریب رقت ضرب نمود و جواب نهایی وارد سیستم شود

4- عدم تطابق واحد های تنظیم شده برای هر تست روی دستگاه ویداس با واحد های تایید شده و درج شده در سیستم جوابدهی

رفع خطا : چک کردن تمامی واحد های موجود در سیستم نرم افزار با سیستم دستگاه وایداس توسط مسئول بخش یا فرد اموزش دیده به صورت ماهانه یا دوره ای

ویداس

1- کالیبراسیون مجدد recal

این حالت زمانی اتفاق می افتد که از کالیبر تعیین شده برای ان تست گذشته باشد که نشانه منقضی شدن زمان کالیبراسیون می باشد و مجددا تست بایست کالیبر شود

2- هشدار دما دستگاه وایداس temperature

این حالت زمانی اتفاق می افتد که دمای سکشن ها بیش از حد پایین بیاید

(در اثر کولر یا بازماندن درب سکشن) یا دما بیش از حد بالا (ناشی از گرما افتاب روی دستگاه یا محیط گرم)

3- هشدار بارکد barcode

خطا بارکد وایداس در دو حالت رخ می دهد 1- زمانی که تست جابجا تعریف شود (به عنوان مثال استریپ تست بتا داخل دستگاه باشد ولی به اشتباه تست دیگری تعریف شود) 2- زمانی که نوع تست اشتباه تعریف شود (به عنوان مثال به جای تعریف می کند HIV4 اپراتور به اشتباه HIV5

رفع خطا : برای جلوگیری از خطا بارکد بایست به حروف درج شده روی استریپ ها توجه شود و دقیقا همان حروف را هنگام پذیرش تعریف کنید

4- هشدار سوبسترا SUB

هشدار سوبسترا زمانی رخ می دهد که استریپ ها دچار مشکل شده باشند (خرابی محلول داخل استریپ ناشی از شرایط نگهداری نامناسب یا عدم رعایت زنجیره سرد یا خرابی و مخدوش شدن بارکد روی استریپ ها)

رفع خطا : برای رفع این مشکل می توان استریپ مخدوش را روی سکشن های دیگر مجددا ران کرد و گاها با قرار دادن استریپ در 37 درجه مشکل استریپ حل می شود اگر مشکل برطرف نشد دیگر استریپ بایستی اوت شود و قابل استفاده نمی باشد .

5- هشدار دستگاه Instrument

هشدار دستگاه به صورت راندوم و لحظه ای برخی مواقع در زمان استارت کردن تست رخ می دهد (خطا دستگاه در اثر تغییرات دمایی یا باز و بسته کردن درب سکشن های دستگاه یا بعد از استارت دستگاه رخ می دهد)

رفع خطا : هشدار دستگاه منجر می گردد که دستگاه در حالت رزرو قرار گیرد و با استارت مجدد این مشکل برطرف می گردد.

خطا های جانبی دستگاه ویداس

1-خطای لنز دستگاه وایداس : الودگی یا خاک و گرد و غبار منجر به خطای لنز دستگاه می شود که در این مرحله تست در محرله وریفای یا تصدیق باقی می ماند و ران نمی شود

رفع خطا : پاک کردن با گاز بدون پرز در بخش پشتی دستگاه

2- خطای الودگی سمپلر با نمونه های مثبت تروپونین یا مارکرها (کاری اور نمونه)

رفع خطا : استفاده از یک نوک سمپلر برای هر نمونه و ممنوعیت استفاده مشترک از نوک سمپلر

8 Maintenance

Maintenance of the *mini VIDAS*® analyzer comprises:

- the preventive maintenance operations performed by bioMérieux technicians or a qualified person trained by bioMérieux,

- the routine maintenance operations which should be performed by the user.

Preventive Maintenance

IMPORTANT: *Optimum performance of the mini VIDAS® analyzer (within the limits of bioMérieux specifications) depends on the preventive maintenance being performed by bioMérieux technicians or a qualified person trained by bioMérieux only, as part of a maintenance contract.*

A   Appendix - Maintenance Records

Maintenance Schedule

Part	Frequency	Procedure
SPR® block	Monthly	Cleaning the SPR® block (Monthly)
Reagent strip tray	Every 6 months or if needed	Cleaning the Strip Preparation Trays (Every 6 Months or if Needed)
Plastic tray (underneath the reagent strip tray)	Every 6 months or if needed	Cleaning the Plastic Trays (Every 6 Months or if Needed)
Strip preparation tray	Every 6 months or if needed	Cleaning the Strip Preparation Trays (Every 6 Months or if Needed)
Outer covers	Every 6 months or if needed	Cleaning the Outer Covers of the Instrument (Every 6 Months or if Needed)
Screen and keypad	Every 6 months or if needed	Cleaning the Screen and Keypad (Every 6 Months or if Needed)
Bar code reader	Every 6 months or if needed	Cleaning the Bar Code Reader (Every 6 Months or if Needed)
Optical lenses	Monthly	Cleaning Optical Lenses (Monthly)
Pipetting device	Monthly	Checking the Pipetting System (Monthly)

Maintenance Check-List

YEAR:

Month	1	2	3	4	5	6	7	8	9	10	11	12
Frequency												
M												
6M/N												
6M/N												
6M/N												
6M/N												

Cleaning the SPR® block (Monthly)

1. Shut down the *mini VIDAS*® analyzer (see Shutting Down the System on page 4-4).

Note: *Previous versions of the **mini VIDAS**® analyzer have no safety latch. For these versions, you can directly open the SPR® block door*
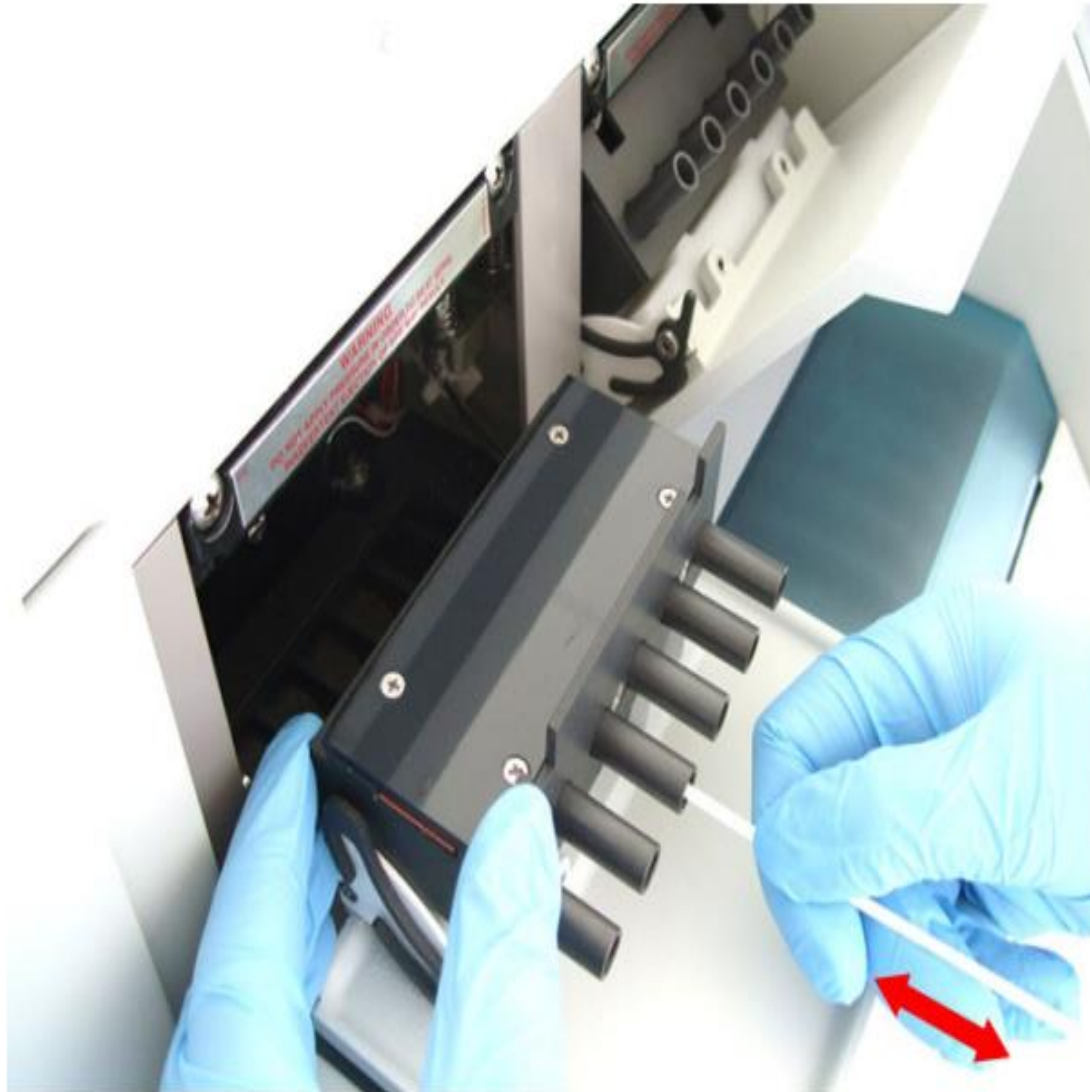
4. Using a Dacron® swab moistened with a laboratory cleaning and disinfection solution, carefully clean the interior of each SPR® liner of the first SPR® block.

5. Continue the operation by using a new Dacron® swab moistened with the cleaning and disinfection solution for each SPR® block.

Note: *Laboratory cleaning and disinfection solution can be identical to the one used in the wipes (same active principle).*

IMPORTANT: The presence of fibers from the Dacron® swab inside the SPR® liners may interfere with the performance of the mini VIDAS® analyzer.
When cleaning the SPR® liners, replace any swab if it becomes fluffy.

6. Clean all surfaces of the SPR® block by using the cleaning and disinfection wipes.

Note: *Wipe all surfaces thoroughly with the wipe, ensure complete wetting and allow to take effect.*

⚠️ **CAUTION:** Do not clean the seals situated above the SPR® block as they only require cleaning when preventive maintenance is performed by the bioMérieux Field Service Engineer.

In the event of accidental spills or contamination, it is imperative that you contact bioMérieux or your bioMérieux representative.
Handling of the seals may affect the performance of your instrument.

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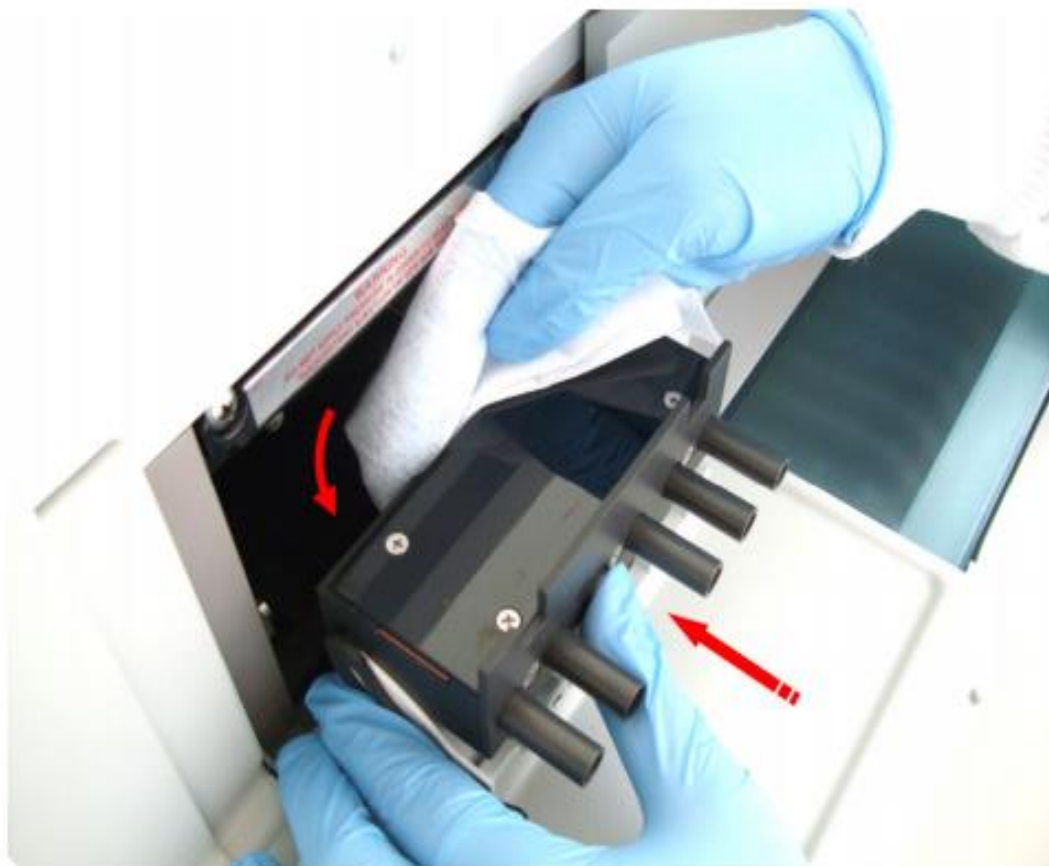
7. Press each SPR® liner until you are able to clean its rear end.

8. Repeat this procedure for each SPR® liner of each block.

9. If no other maintenance tasks have to be performed, start the **mini VIDAS**® analyzer (see Starting the System on page 4-3).

Cleaning Optical Lenses (Monthly)

It is recommended to perform the following procedure to ensure the cleanliness of the scanner and prevent optical self-test errors and self-calibration drifts.

IMPORTANT: *The VIDAS® Lens Cleaner is intended for cleaning the optical lenses of the mini VIDAS® analyzers.*

- *Turn the power switch to OFF before cleaning the optical lenses.*

- *Before each use: Take the VIDAS® Lens Cleaner out of its package and squeeze the rubber ball hard two or three times in order to remove any moisture inside.*

- *During cleaning: Avoid touching the lenses with the extremity of the tool as it could damage them.*

- *After each use: Put the VIDAS® Lens Cleaner back into its package and store it in a dry place.*

- *In case of accidental spills on the VIDAS® Lens Cleaner, clean the tool with a dry clean cloth.*

- *If any substance is accidentally introduced inside the VIDAS® Lens Cleaner, replace the tool.*

1. Open the SPR® block doors of sections A and B.

   The Scanner head should be visible (see figures below) either in section A or section B.

   There are two scanner head models (see Figure 8-1).

- *If any substance is accidentally introduced inside the VIDAS® Lens Cleaner, replace the tool.*

1. Open the SPR® block doors of sections A and B.

   The Scanner head should be visible (see figures below) either in section A or section B.

   There are two scanner head models (see Figure 8-1).
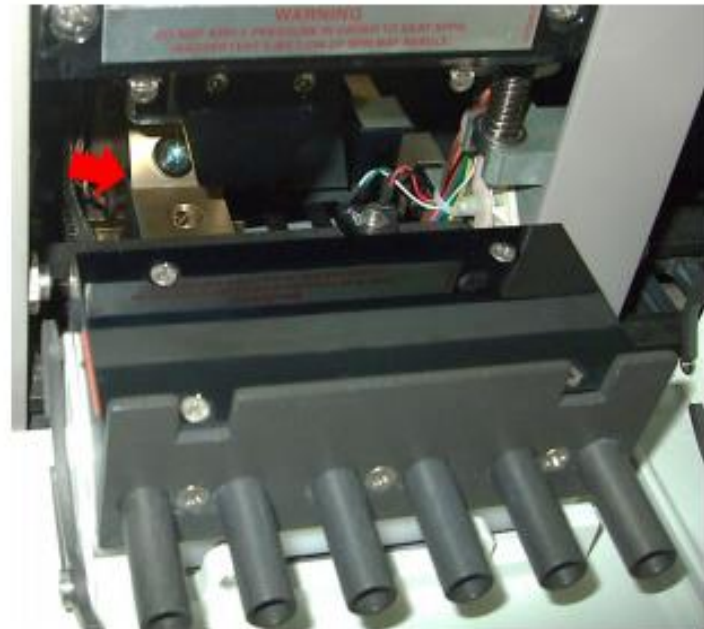
Model A   **Model B**

Figure 8-1: Scanner models

2. Shut down the *mini VIDAS*® analyzer (see Shutting Down the System on page 4-4.).

3. Position the **VIDAS**® Lens Cleaner above the lens.

4. Clean the upper lens *(tilted surface)*: squeeze the rubber ball hard ten times.

Model A

Model B

Figure 8-2: Cleaning the upper lens

5. Clean the lower lens (*horizontal surface*) by squeezing the rubber ball ten times.

Model A

Model B

Figure 8-3: Cleaning the lower lens.

Cleaning the Reagent Strip Trays (Every 6 Months or if Needed)

1. Shut down the *mini VIDAS*® analyzer (see Shutting Down the System on page 4-4.).

2. Open the section tray dust cover (Plexiglas).
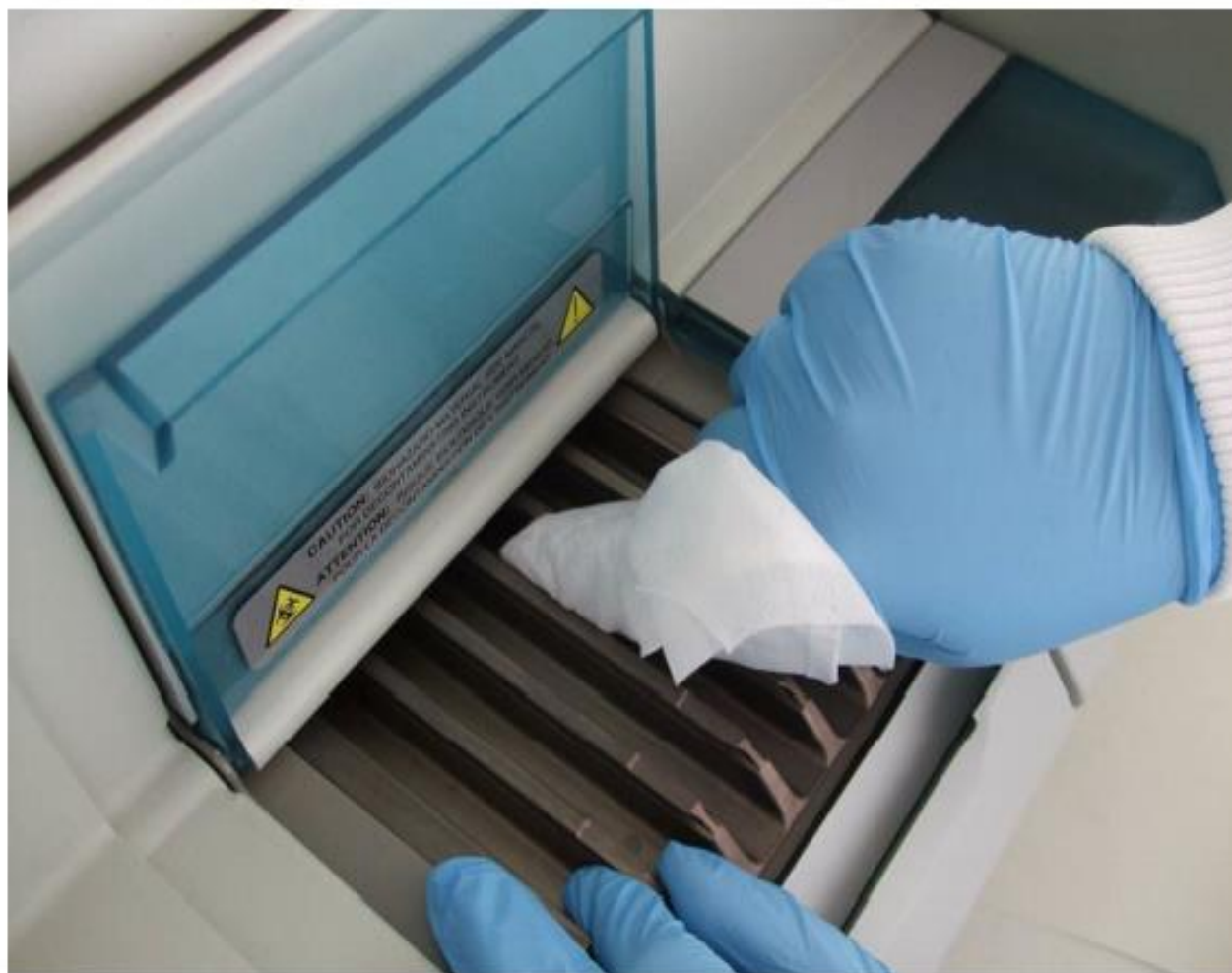
Cleaning the Plastic Trays (Every 6 Months or if Needed)

1. Shut down the *mini VIDAS*® analyzer (see Shutting Down the System on page 4-4.).

2. Open the section tray dust cover (Plexiglas).

3. Move the strip tray in order to have access to the plastic tray.
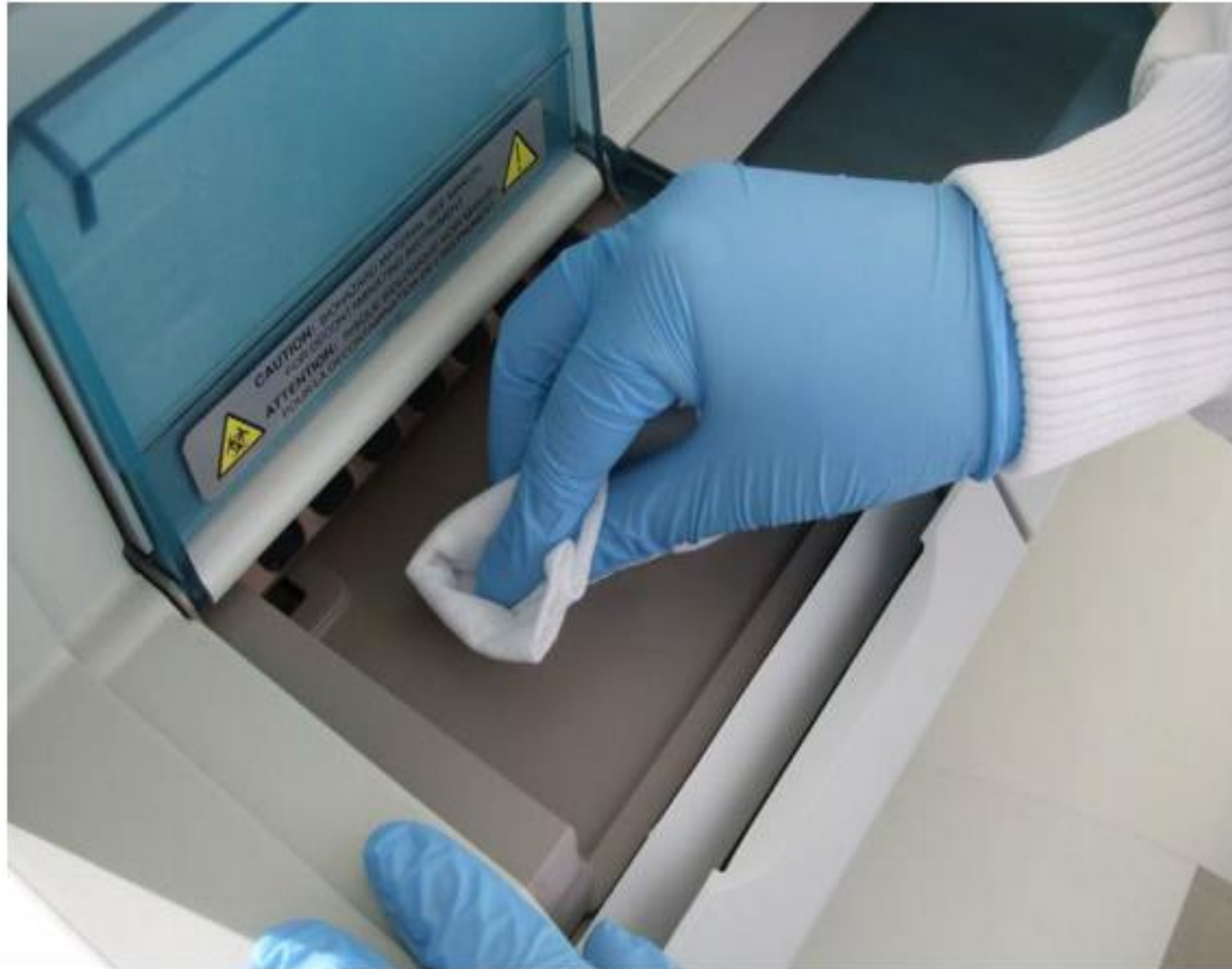
Cleaning the Outer Covers of the Instrument (Every 6 Months or if Needed)

1. Shut down the *mini VIDAS®* analyzer (see Shutting Down the System on page 4-4.).

2. Wipe all surfaces with cleaning and disinfection wipes.

Note: *Wipe all surfaces thoroughly with the wipe, ensure complete wetting and allow to take effect.*

3. If no other maintenance tasks have to be performed, start the *mini VIDAS®* analyzer (see Starting the System on page 4-3).

Cleaning the Screen and Keypad (Every 6 Months or if Needed)

1. Shut down the *mini VIDAS®* analyzer (see Shutting Down the System on page 4-4.).

2. Wipe the screen and the keypad with cleaning and disinfection wipes.

Note: *Wipe all surfaces thoroughly with the wipe, ensure complete wetting and allow to take effect.*

3. If no other maintenance tasks have to be performed, start the *mini VIDAS®* analyzer (see Starting the System on page 4-3).

Cleaning the Bar Code Reader (Every 6 Months or if Needed)

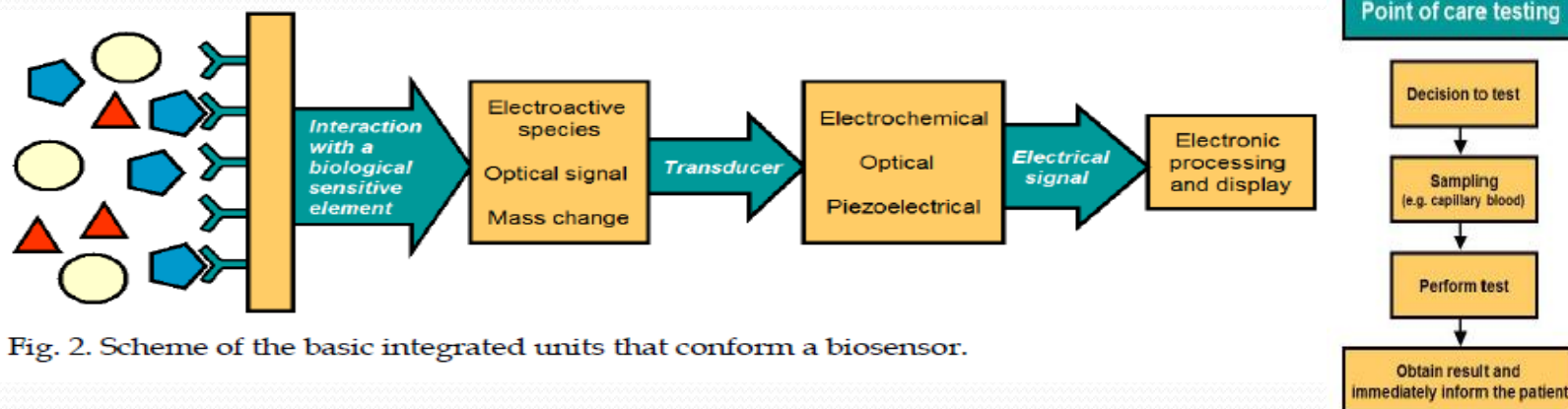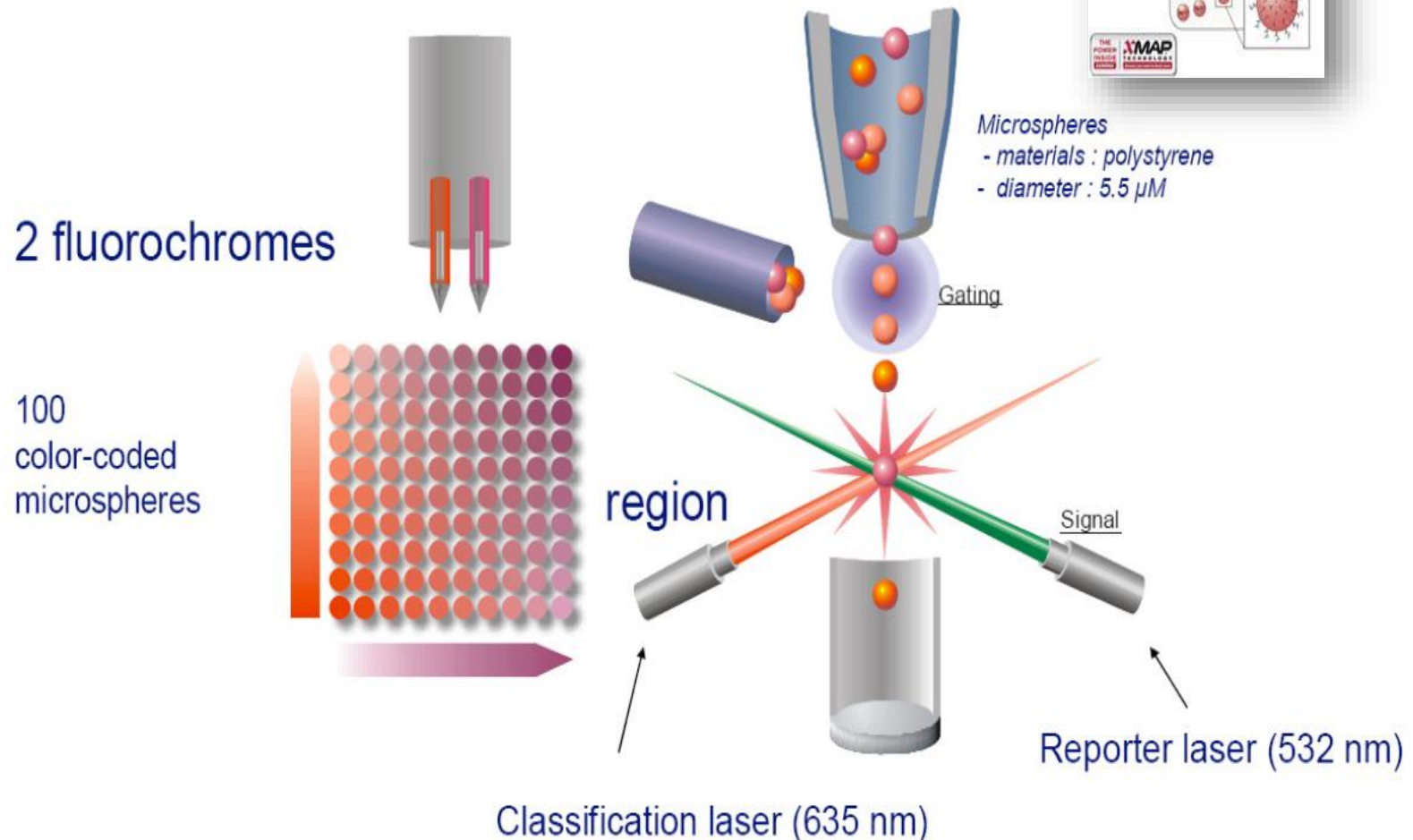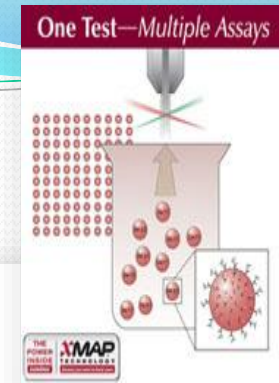1. Wipe the bar code reader (except the window) with cleaning and disinfection wipes.

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Fig. 2. Scheme of the basic integrated units that conform a biosensor.

Luminex:
xMAP (multiplex analyte profiling) technology

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xMAP (multiplex analyte profiling) technology