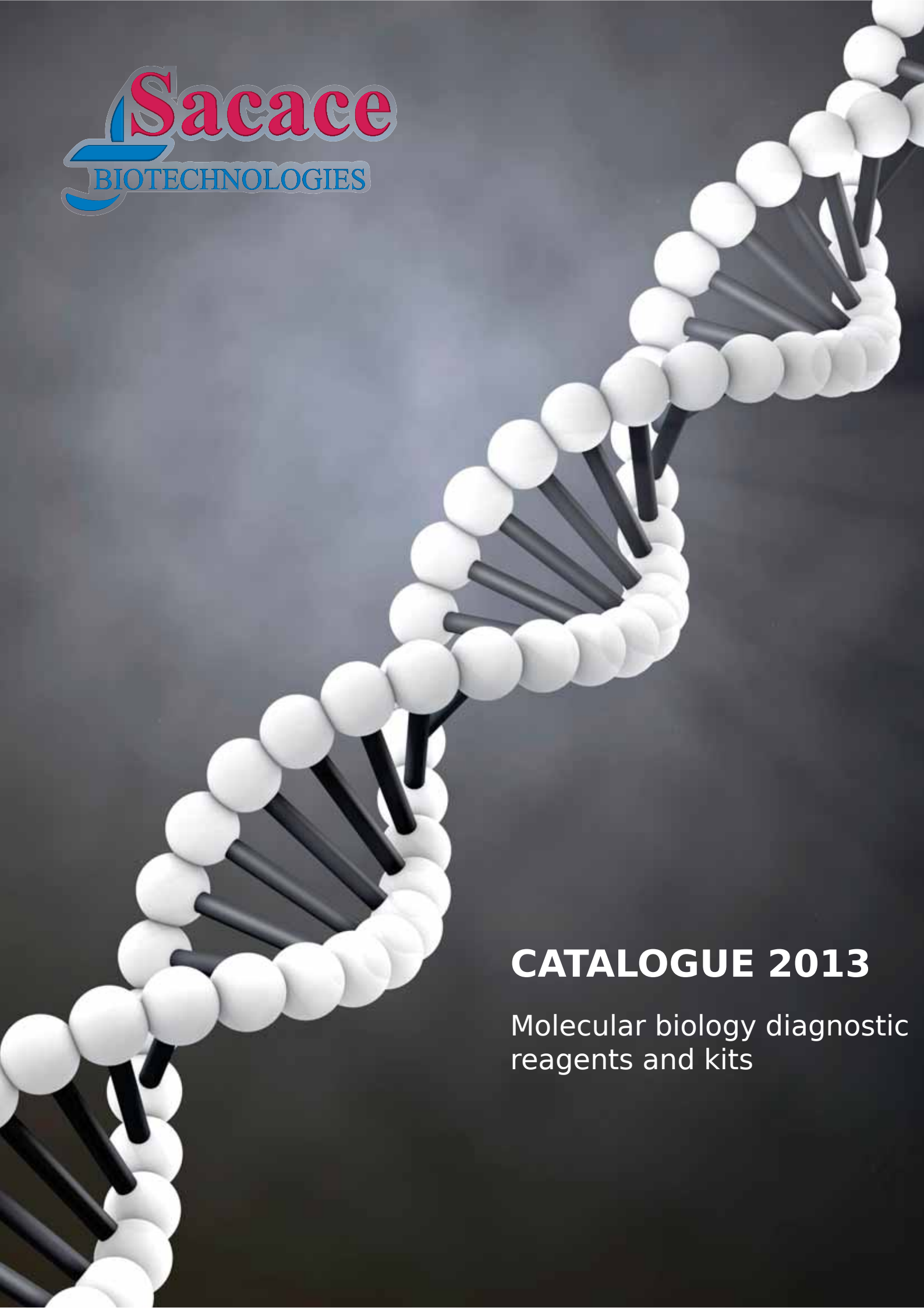
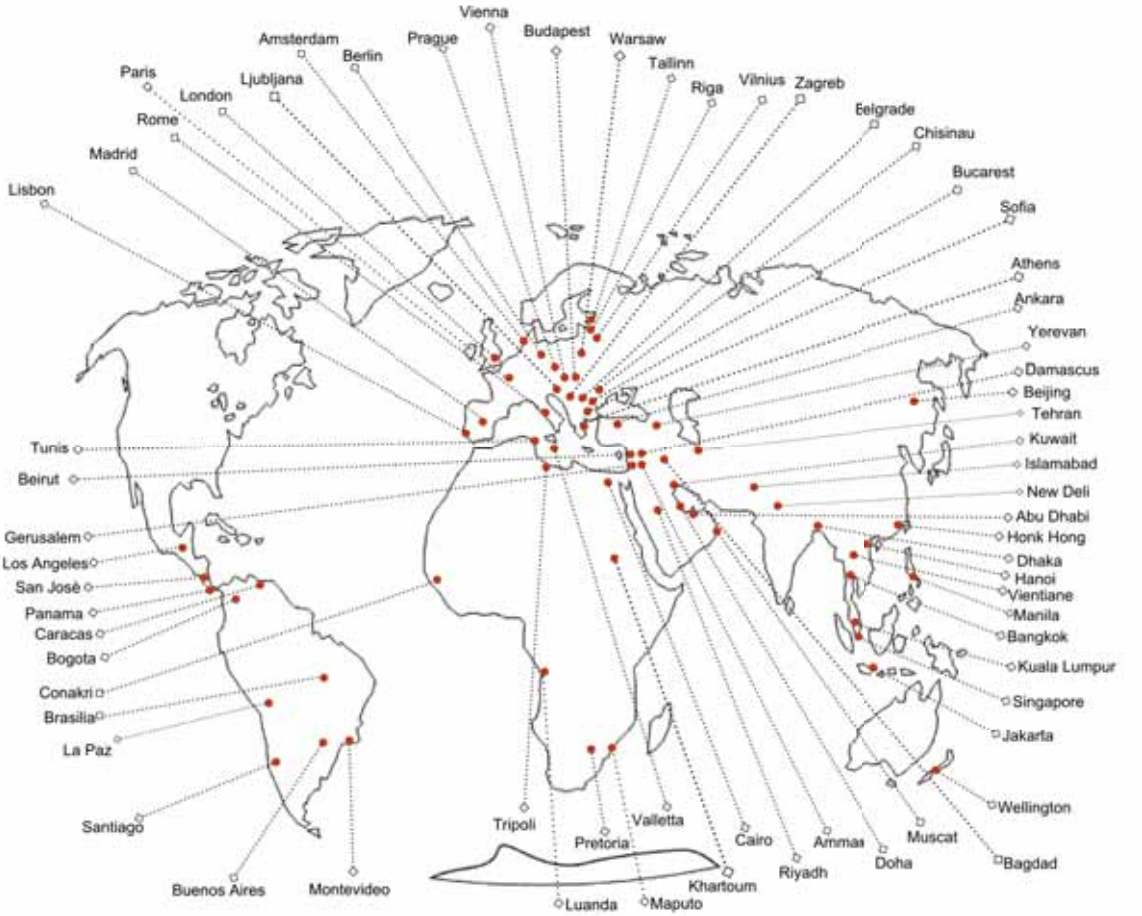
Sacace BIOTECHNOLOGIES



CATALOGUE 2013

Molecular biology diagnostic reagents and kits

Sacace Biotechnologies products are available through distributors in the following countries:



Afghanistan, Angola, Austria, Argentina, Armenia, Belgium, Brasil, Bangladesh, Bolivia, Bulgary, Burkina Faso, Cambodia, Cape Verde, Chile, Croatia, Costa Rica, Colombia, Czech Republic, Egypt, Equador, Estonia, Finland, France, Georgia, Germany, Greece, Guinea, Hong Kong, Hungary, India, Indonesia, Israel, Italy, Iran, Iraq, Jamaica, Japan, Jordan, Kenya, Korea South, Kosovo, Kuwait, Laos, Latvia, Lebanon, Lybia, Lithuania, Malaysia, Malta, Mexico, Moldova, Montenegro, Mozambique, New Zeland, Norway, Oman, Panama, Pakistan, Peru, Philippines, Poland, Portugal, Qatar, Romania, Saudi Arabia, Serbia, Singapore, Slovenia, South Africa, Spain, Sudan, Syria, Sweden, Thailand, Tunisia, Turkey, Uruguay, U.S.A., United Arab Emirates, Venezuela, Vietnam, Zimbawe.

Our distributor network is costantly evolving. For the most updated list and detailed contact information of your regional distributor, please contact us by email: info@sacace.com to learn more about our company and products.

Company portrait

Sacace Biotechnologies s.r.l., is an innovative Italian company, located in **Como (Italy) founded in 2001.**
From the very beginning this company was focused on innovation and on establishing an international presence. This multinational presence reinforces our ability to offer our healthcare solutions and to anticipate needs in all regions of the world. The company supplies its products to the international diagnostics and pharmaceutical industry, as well as to hospitals and laboratories through a global network of distributors located in more than **60 countries** all over the world.
Sacace prime objective is to identify and meet the customers' needs. This implies solving their problems and anticipating their future needs by maintaining close contact with them and listening to what they say.
Sacace incorporates all functions required – research & development, manufacturing, logistics, marketing and sales of an extensive line of molecular biology diagnostic tests that accurately screen for the presence of disease in human, animal and food fields – to provide adequate support to its customers.
The kits produced by Sacace include all the reagents for nucleic acid extraction, reverse transcription, amplification of specific genomic regions and detection by Agarose gel electrophoresis, Real Time PCR and End Point detection.
The products are designed to provide ease-of-use, they are **CE marked** in compliance with **Directive 98/79EC** and incorporate the highest quality reagents to ensure consistency, reliability and long shelf life.
We have a dedicated team of experienced research scientists who are committed to researching and developing new products and improved test methods to aid patient diagnosis.
Customer consultation is a key element in our strategy for the development and production of kits that meet market needs and exceed expectations.
Quality assurance is the cornerstone of the Company's success. The quality management has obtained **ISO 9001:2008** and **ISO 13485:2004** certifications and all aspects of product design and manufacture are carried out in accordance with these standards.

CERTIFICATO DEL SISTEMA DI GESTIONE PER LA QUALITÀ

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Si dichiara che il sistema di gestione per la Qualità dell'Organizzazione:
We certify that the Quality Management System of the Organization:

Reg. No: 8315 – A

SACACE BIOTECNOLOGIES S.r.l.

Indirizzo/*Address*:

Via Scalabrini 44
22100 Como Italia

È conforme alla norma/*Is in compliance with the standard*:

UNI EN ISO 9001:2008
ISO 9001:2008

Per i seguenti prodotti-servizi/*For the following products-services*:

Sviluppo e produzione di kit diagnostici e per la ricerca scientifica
Development and production of diagnostic and scientific research kits

EA: 12 , 29 a

Il mantenimento della certificazione è soggetto a sorveglianza annuale e subordinato al rispetto dei requisiti essenziali CERMET.
Maintenance of the certification is subject to annual survey and dependent upon the observance of CERMET basic requirements.
Riferirsi al manuale qualità per i dettagli delle esclusioni ai requisiti della norma UNI EN ISO 9001:2008
Refer to quality manual for details of exclusion of ISO 9001:2008 requirements

*** La data di rilascio del certificato corrisponde alla data di primo rilascio da parte di altro organismo accreditato.**
The certificate issuance date is that of the first issuance released by another credited Certification Body.

Rilascio certificato/*Certificate issuance*: 2007-06-22 *
Ultima modifica/*Last modification*: 2010-03-10
Prossimo rinnovo/*Following renewal*: 2013-03-09

Direttore Commerciale e Operativo
Sales and Operations Manager
Gianpiero Belcredi

Direttore Generale
General Manager
Rodolfo Trippodo

SINCERT
Membro degli accordi di mutuo riconoscimento EA e IAF.
Signatory of EA and IAF Mutual Recognition Agreements

CERMET
Certification and research for quality

CERMET Soc. Cons. a r.l. - Headquarter Italy - Via Cadriano 23 - 40057 Cadriano di Granarolo (BO) -Tel +39.051.764.811 - Fax +39.051.763.382 – www.cermet.it

CERTIFICATO DEL SISTEMA DI GESTIONE PER LA QUALITÀ

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Si dichiara che il sistema di gestione per la Qualità dell'Organizzazione:
We certify that the Quality Management System of the Organization:

Reg. No: 8315 – M

SACACE BIOTECNOLOGIES S.r.l.

Indirizzo/*Address:*

Via Scalabrini 44
22100 Como Italia

È conforme alla norma/*Is in compliance with the standard:*

UNI EN ISO 13485:2004
ISO 13485:2003

Per i seguenti prodotti-servizi/*For the following products-services:*

Sviluppo e produzione di kit diagnostici
Development and production of diagnostic kits

EA: 12

Il mantenimento della certificazione è soggetto a sorveglianza annuale e subordinato al rispetto dei requisiti essenziali CERMET.
Maintenance of the certification is subject to annual survey and dependent upon the observance of CERMET basic requirements.
Riferirsi al manuale qualità per i dettagli delle esclusioni ai requisiti della norma UNI EN ISO 13485:2004
Refer to quality manual for details of exclusion of ISO 13485:2003 requirements
La presente certificazione è stata rilasciata in conformità al Regolamento Tecnico Sincert RT 20.
This certification has been granted in compliance with the Sincert Technical Regulation 1H 20.

Per informazioni puntuali e aggiornate circa eventuali variazioni dello stato della certificazione di cui al presente certificato, si prega di contattare il n° telefonico +39 011.2258681 o e-mail: infotorino@cermet.it/ *In case of punctual and updated information about any changes to the certification status, please contact phone number +39 011.2258681 o e-mail: infotorino@cermet.it*

Rilascio certificato/*Certificate Issuance:*	2010-03-10
Ultima modifica/*Last modification:*	2010-03-10
Prossimo rinnovo/*Following renewal:*	2013-03-09

Direttore Commerciale e Operativo
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Molecular Diagnostics

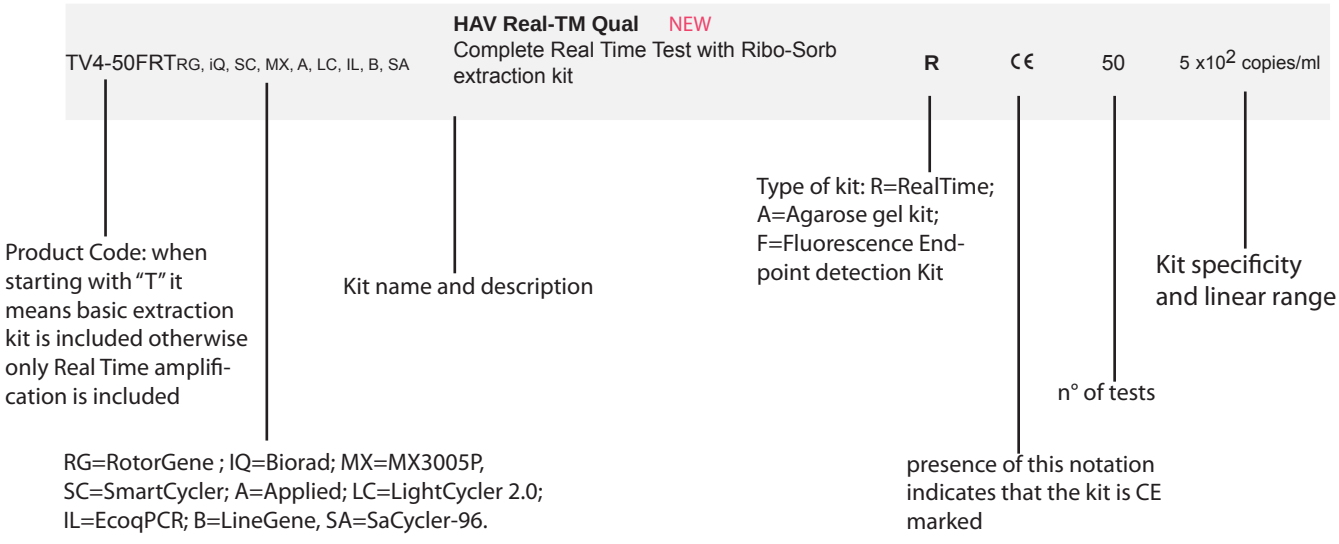
The analysis of **DNA**, **RNA** and proteins at the molecular level performed in clinical laboratories, known as molecular diagnostics, is our core business.
Modern analyses based on the detection of nucleic acids offer considerable advantages over traditional methods of pathogen detection in humans. These procedures detect viruses, bacteria, and parasites more rapidly and with far greater sensitivity and specificity. On genetic and protein levels, the cause of a disease can now be found more precisely, enabling the most suitable therapy to be developed. Likewise, the analysis of an individual's genetic makeup enables physicians to predict the course of certain diseases. Therewith, molecular diagnostics provide modern medicine with the necessary tools for developing completely new, personalized strategies in the battle against many diseases. Hospitals and diagnostics laboratories using these techniques have different needs than customers in other markets. They ask for products which guarantee the highest levels of reliability and maximum speed. The advent of molecular biology diagnostics has particularly revolutionized the diagnosis and treatment of diseases.
The company offers a wide range of assays for **real-time polymerase chain reaction (PCR)** applications and these products are sold either direct to an end user or through a distribution relationship.
These products are 'platform independent' and are used by customers on different platforms like Rotor-Gene™ (Qiagen), LineGeneK™ (Bioer Technologies), iQ5, CFX™ (BioRad), SmartCycler™ (Cepheid), Applied Biosystems 7300/7500™, EcoqPCR™ (Illumina), MX3005P™ (Agilent Technologies), SaCycler-96™ (Sacace Bitoechnologies).
Examples of the diseases tested for include: **HCV, HBV, HIV, sexually transmitted infections, cardiovascular diseases, the herpetic family of viruses (CMV, EBV, and HSV)** as well as seasonal infectious diseases such as **enterovirus** and **influenza**.
Sacace offers different kits for HCV qualitative, quantitative and genotyping tests.
The company's portfolio consists also of multiplexing assays which allow for the testing of several different pathogens in one single run: for example we have a kit for simultaneous multiplex detection of HCV/HBV/HIV, CMV/EBV/HSV, Chlamydia/Neisseria/Trichomonas/Mycoplasma and others.
One of the most important products line of Sacace is sexually transmitted diseases (STD) kits. STD refer to a variety of bacterial, viral and parasitic infections that are acquired through sexual activity.
In light of the epidemic spread of animal diseases such as avian flu or swine flu and the recent international food safety scandals, molecular testing is continuously gaining importance in veterinary medicine and agricultural industry. Our molecular tests enable for reliable and rapid detection of infectious animal diseases and food-borne pathogens.
Sacace offers also a range of nucleic acid purification products that are used to investigate bacterial and viral infections in human and animals, furthermore they have a wide range of applications in the research field.

Sacace
BIOTECHNOLOGIES

Sacace Biotechnologies Srl
via Scalabrini, 44. – 22100 –Como – Italy Tel +390314892927 Fax +390314892926 VAT: 01294510621
mail: **info@sacace.com** web: **www.sacace.com**

Table of Contents

Kits Table Legend:



Hepatitis Viruses

Hepatitis Viruses are a group of infectious liver diseases caused by hepatotropic viruses belonging to different families. There are 5 major viruses that cause hepatitis. They make up two groups of hepatitis: enteric (HAV and HEV) and parenteral (HBV, HCV and HDV) (see below table). Enteric hepatitis are characterized by a fecal-oral transmission way and these viruses cause only acute hepatitis. Viruses of enteric hepatitis possess high infectivity and stability. Viruses of hepatitis B, C and D are enveloped in a membrane, are transmitted by parenteral way and are able to promote not only acute but chronic virus hepatitis. Viruses of hepatitis B and C play an important role in the development of chronic virus liver diseases, they are responsible for development of 60-70 percent of hepatic cirrhosis and up to 70-80 percent of primary liver cancers. Due to a great incidence of hepatitis viruses one of the major task is the development of highly sensitive and reproducible methods of diagnostics allowing detection of the causative agent at all stages of the disease as well as monitoring of antiviral therapy effectiveness.

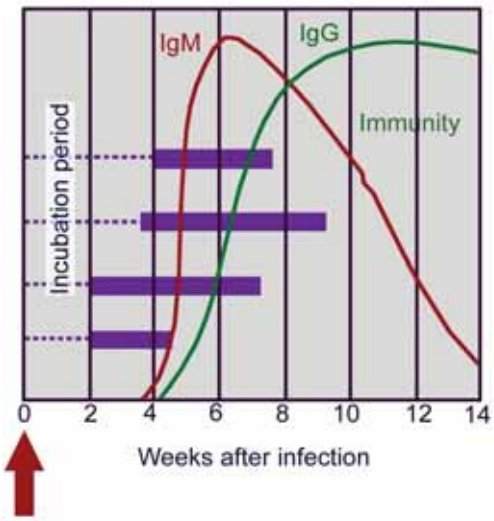
Causative agent	Family	Genome	Transmission way	Chronization
Hepatitis A Virus (HAV)	Picornaviridae	RNA, 7500 nc	fecal-oral	no
Hepatitis B Virus (HBV)	Hepadnaviridae	DNA, 3200 pn	parenteral	yes
Hepatitis C Virus (HCV)	Flaviviridae	RNA, 9500 nc	parenteral	yes
Hepatitis D Virus (HDV)	Deltavirus (viroid)	RNA, 1700 nc	parenteral	yes
Hepatitis E Virus (HEV)	Calicivirus	RNA, 7500 nc	fecal-oral	no

Characteristic	Hepatitis A	Hepatitis B	Hepatitis C	Hepatitis D	Hepatitis E
Agent	Hepatitis A virus (HAV); single stranded RNA; no envelope	Hepatitis B virus (HBV); double stranded DNA; envelope	Hepatitis C virus (HCV); single stranded RNA; envelope	Hepatitis D virus (HDV); single stranded RNA; envelope from HBV	Hepatitis E virus (HEV); single stranded RNA; no envelope
Incubation period	15-50 days	45-160 days	14-180 days	Uncertain	15-50 days
Manifestations or symptoms	Mostly subclinical; severe cases: fever, headache, malaise, jaundice	Mostly subclinical; similar to HAV, but fever, headache absent, and often progress to severe liver damage	Similar to HBV	Severe liver damage, high mortality rate	Similar to HAV, but pregnant women may have high mortality rate
Vaccines	Yes	Yes	None	HBV vaccine is protective because coinfection required	None

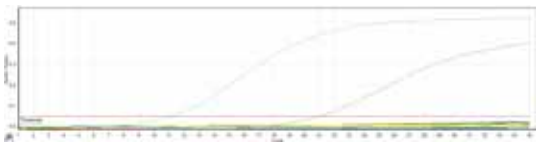
Hepatitis A (HAV)

The ***hepatitis A (HAV)*** virus is the enteric infection most widely spread in the world. This is the acute infectious disease of liver transmitted by fecal-oral way, the causative agent of which is hepatitis A virus (HAV) belonging to the family Picornaviridae. Virus hepatitis A is one of the five most economically significant infectious diseases and one of the priority problems of the public healthcare.

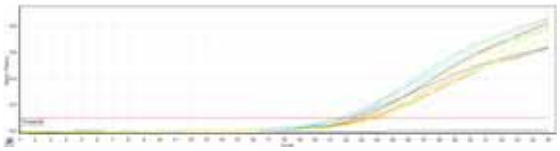
Detection of the causative agent RNA by PCR method has significant advantages as related to ELISA and biochemical tests at detection of the virus in blood of contact persons as RNA of the hepatitis A virus manifests itself in the blood on the third week from the moment of contamination and is detected at the average within 20 days after appearance of the disease symptoms. Thus, RNA is the first diagnostic marker detected in the patient blood, occurs earlier than aHAV IgM and gives no falsely negative reactions.



Detection of RNA of the hepatitis A virus with the help of PCR in feces is possible from the third week of the incubation period and up to three months after manifestation of the disease symptoms. Detection of RNA has more advantages (by 1000 times more at the least) as compared to detection of HAV-Ag in environmental entities (drinking or waste waters, waters from impounded surface waters and so on).



Data by JOE /Yellow channel (detection of HAV)



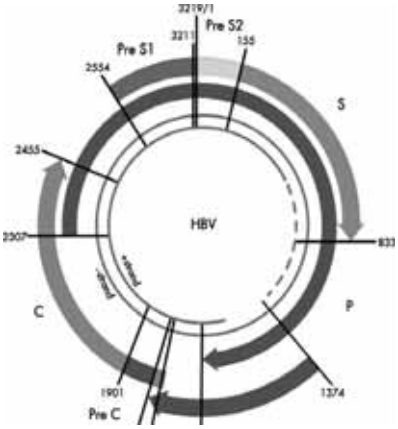
Data by FAM /Green channel (detection of IC)

Hepatitis A Virus Kits

TV4-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HAV Real-TM Qual** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	CE	50	5 x10^2 copies/ml
TV4-50FRT C SA, RG, iQ, SC,MX, A,IL,B,LC	**HAV Real-TM Qual** Complete Real Time Test with Ribo-Virus column extraction kit	**R**		50	5 x10^2 copies/ml
V4-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HAV Real-TM Qual** Real Time Amplification kit with the RNA extraction controls	**R**	CE	50	5 x10^2 copies/ml
V-4-50R	HAV 430	**A**	CE	55	1 x10^3 copies/ml
TV4-50FEP	**HAV-FEP** Complete FEP Test with Ribo-Sorb extraction kit	**F**		50	5 x10^2 copies/ml
V4-50FEP	**HAV-FEP** Amplification and FEP detection kit	**F**		50	5 x10^2 copies/ml

Hepatitis B (HBV)

Hepatitis B virus (HBV) is a widely spread human infection caused by DNA-containing virus of hepatitis B belonging to the family Hepadnaviridae. Transmission of hepatitis B virus results from exposure to infectious blood or body fluids containing blood. Possible forms of transmission include unprotected sexual contact, blood transfusions, re-use of contaminated needles & syringes, and vertical transmission from mother to child during childbirth. The viral hepatitis B presents a serious problem for public healthcare due to its universal spread. At present in accordance with the WHO data the population infected with hepatitis B virus makes 500 million people.

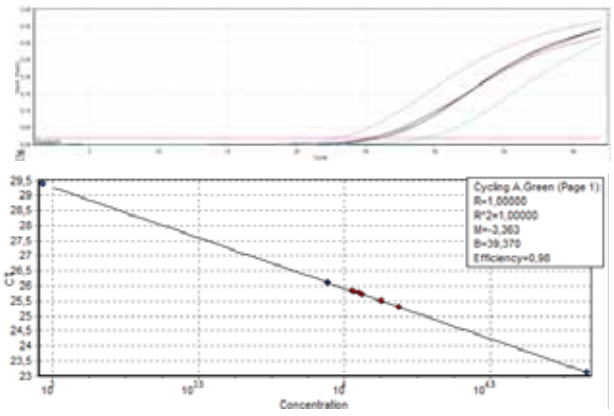


Detection of HBV DNA is used for:

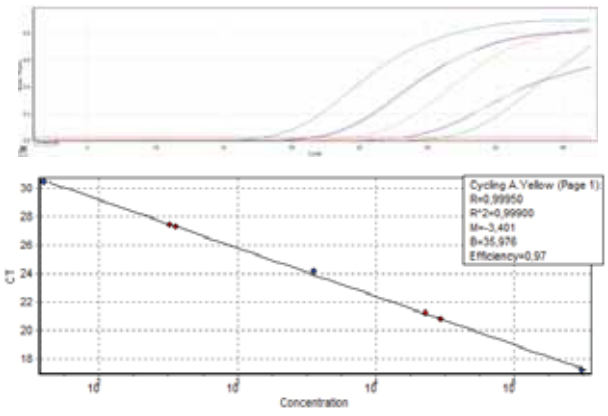
- Early diagnostics of acute viral hepatitis B;
- Detection of latent forms of viral hepatitis B;
- Detection of mutant strains of hepatitis B virus by HBsAg;
- Establishment of diagnosis of chronic viral hepatitis B;
- Monitoring of effectiveness of the antiviral therapy;

ADVANTAGES OF SACACE™ HBV REAL TIME QUANT KIT

- Use of the Quantitative Internal Control (concentration reported in Data Card) which represents recombinant DNA-containing-structure which carried through all steps of analysis from nucleic acid extraction to PCR amplification-detection. The presence of quantitative HBV Rec IC allows not only to monitor the extraction procedure and to check possible PCR inhibition but also to verify possible losses of the DNA during extraction procedure thus enabling to calculate precisely the HBV viral load.
- Presence in the reagents supplied with the kit of two positive controls of the extraction: Pos1 – low viral load and Pos2 – medium viral load that are quantitatively described in Data Card which carried through all steps and allow quality control of the conducted analysis.
- Use of Quantitative Standards for HBV DNA and HBV IC enabling to calculate precisely the HBV viral load.
- High sensitivity: 20 copies/ml (value obtained using the “Magno-Virus” extraction kit (Sacace REF K-2-16)
- The reagent kit has a wider linear range of measurements (from 20 to 10^8 copies/ml).



Data by Fam/Green channel: quantitative detection of IC



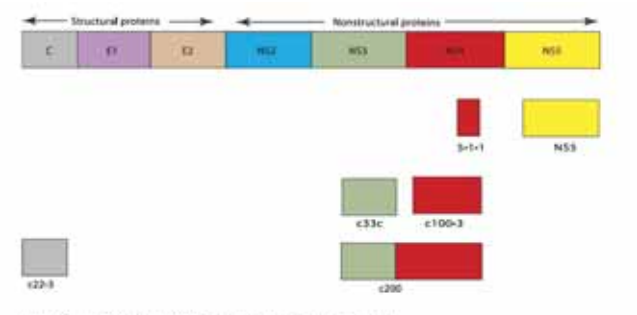
Data by JOE /Yellow channel: quantitative detection of HBV

Hepatitis B Virus Kits

TV5-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HBV Real-TM Qual** Complete Real Time Test with Ribo-Sorb extraction kit (25 µl Reaction Mix)	**R**	100	2 x10^2 copies/ml
TV5-100FRT C SA, RG, iQ, SC,MX, A,IL,B,LC	**HBV Real-TM Qual** Complete Real Time Test with Ribo-Virus column extraction kit (25 µl Reaction Mix)	**R**	100	1 x10^2 copies/ml
V5-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HBV Real-TM Qual** Real Time Amplification kit with the DNA extraction controls (25 µl Reaction Mix)	**R**	100	50 copies/ml
TV5-64FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HBV Real-TM Qual** Complete Real Time Test with Ribo-Sorb extraction kit (50 µl Reaction Mix)	**R**	64	1 x10^2 copies/ml
V5-64FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HBV Real-TM Qual** Real Time Amplification kit with the DNA extraction controls (50 µl Reaction Mix)	**R**	64	20 copies/ml
TV5-96FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HBV Real-TM Qual** Complete Real Time Test with Ribo-Sorb extraction kit (50 µl Reaction Mix)	**R**	96	1 x10^2 copies/ml
TV5-96FRT C SA, RG, iQ, SC,MX, A,IL,B,LC	**HBV Real-TM Qual** Complete Real Time Test with Ribo-Virus column extraction kit (50 µl Reaction Mix)	**R**	96	1 x10^2 copies/ml
V5-96FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HBV Real-TM Qual** Real Time Amplification kit with the DNA extraction controls (50 µl Reaction Mix)	**R**	96	20 copies/ml
TV5-100/2FRT SA, RG, iQ, SC,MX, A,IL,B	**HBV Real-TM Quant** Complete Real Time Test with Ribo-Sorb extraction kit (25 µl Reaction Mix)	**R**	100	Linearity: 3 x10^2 -10^8 copies/mL
TV5-100/2FRT C SA, RG, iQ, SC,MX, A,IL,B	**HBV Real-TM Quant** Complete Real Time Test with Ribo-Virus column extraction kit (25 µl Reaction Mix)	**R**	100	Linearity: 2 x10^2 -10^8 copies/mL
V5-100/2FRT SA, RG, iQ, SC,MX, A,IL,B	**HBV Real-TM Quant** Real Time Amplification kit with the DNA extraction controls (25 µl Reaction Mix)	**R**	100	Linearity: 50 -10^8 copies/mL
TV5-48FRT SA, RG, iQ, MX, A	**HBV Real-TM Quant** Complete Real Time Test with Ribo-Sorb extraction kit (50 µl Reaction Mix)	**R**	48	Linearity: 2 x10^2 -10^8 copies/mL
TV5-48FRT C SA, RG, iQ, MX, A	**HBV Real-TM Quant** Complete Real Time Test with Ribo-Virus column extraction kit (50 µl Reaction Mix)	**R**	48	Linearity: 1 x10^2 -10^8 copies/mL
V5-48FRT SA, RG, iQ, MX, A	**HBV Real-TM Quant** Real Time PCR kit with the DNA extraction controls (50 µl Reaction Mix)	**R**	48	Linearity: 20 -10^8 copies/mL
V-5-50R	HBV 470/770 IC	**A**	55	5 x10^2 copies/ml
V5-50FEP	**HBV-FEP** Amplification and FEP detection kit	**F**	50	5 x10^2 copies/ml

Hepatitis C (HCV)

Hepatitis C virus (HCV) is RNA-containing, hepatotropic virus belonging to the Flaviviridae family. Contamination with hepatitis C virus occurs at direct entering of the virus in blood (at parenteral interventions or during blood transfusions). Most people with acute HCV infection are asymptomatic or have mild symptoms (fatigue, nausea, jaundice) but they are unable to clear the virus and in approximately 80% of cases this leads to chronic infection. In 15 to 20% of patients chronic HCV infection progresses at a variable rate to cirrhosis, with a 1 to 4% annual risk of developing hepatocellular carcinoma. At present there are more than 170 million of infected people, which makes up 3 percent of the population of the world.



Genome organization of HCV and antigens

The leading position in laboratory diagnostics of HCV is taken by molecular-biological methods allowing:
1) early diagnostics of the acute viral hepatitis C;
2) establishment of indications to antiviral therapy;
3) choice of the optimum therapeutic regime;

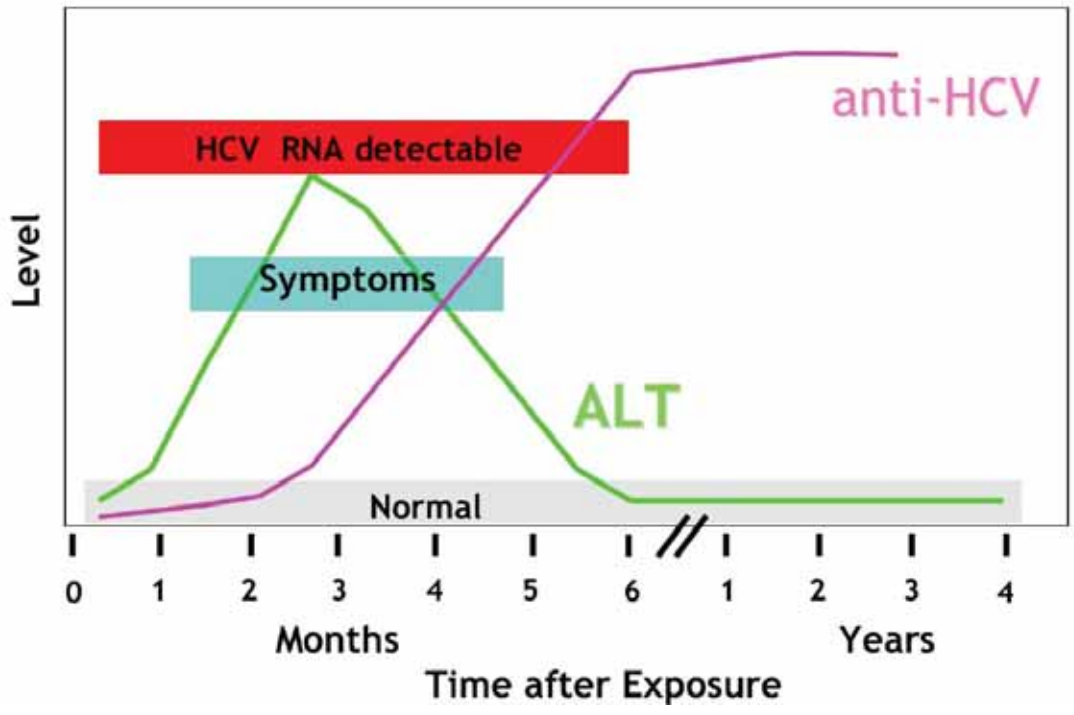
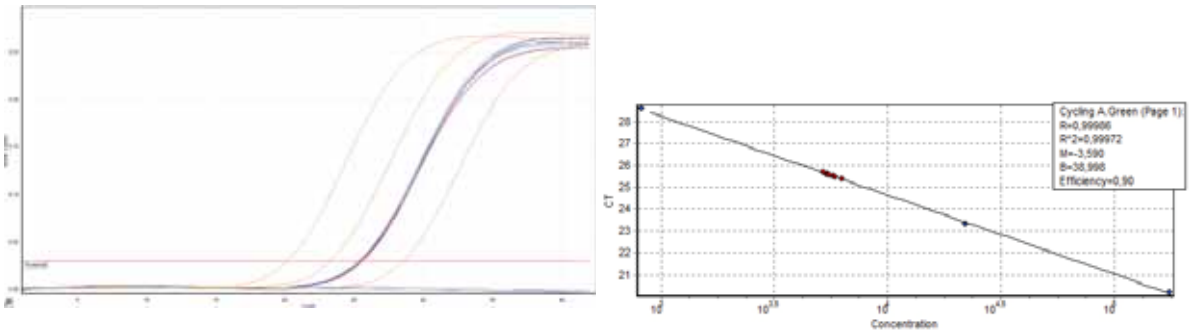


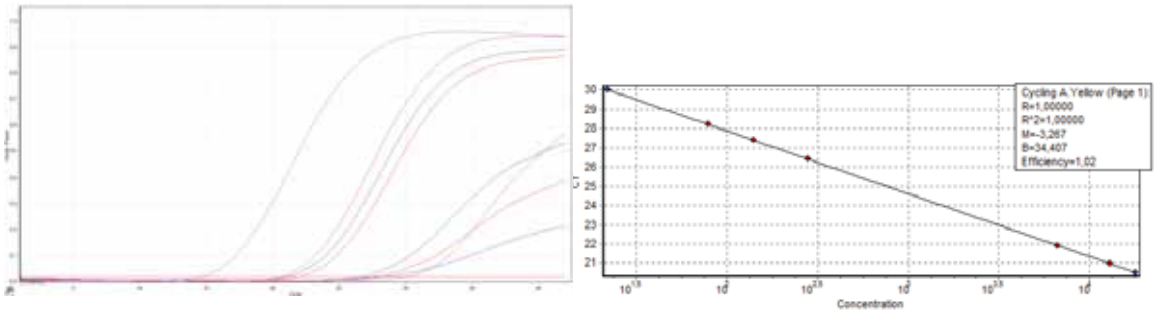
Figure. Acute HCV Infection with recovery

ADVANTAGES OF SACACE™ HCV REAL TIME QUANT KIT

- Application of primers and probes in the most conservative area of the 5' UTR region that allow effective detection of the majority of HCV genotypes (tested genotypes: 1a, 1b, 1c, 2a, 2b, 2c, 3a, 3b, 4a, 4c, 4d, 5a, 6a)
- Use of the Quantitative Internal Control (concentration reported in Data Card) which represents recombinant RNA-containing-structure which carried through all steps of analysis from nucleic acid extraction to PCR amplification-detection. The presence of quantitative HCV Rec IC allows not only to monitor the extraction procedure and to check possible PCR inhibition but also to verify possible losses of the RNA during extraction procedure thus enabling to calculate precisely the HCV viral load.
- Presence in the reagents supplied with the kit of two positive controls of the extraction: Pos1 – low viral load and Pos2 – medium viral load that are quantitatively described in Data Card which carried through all steps and allow quality control of the conducted analysis.
- Use of Quantitative Standards for HCV RNA and HCV IC enabling to calculate precisely the HCV viral load.
- High sensitivity: 10 IU/ml (value obtained using the "Magno-Virus" extraction kit (Sacace REF K-2-16)
- The reagent kit has a wider linear range of measurements (from 20 to 5 x10^7 IU/ml).



Fam/Green Channel: quantitative IC RNA detection



Joe/Yellow Channel: quantitative HCV RNA detection

Hepatitis C Virus Kits

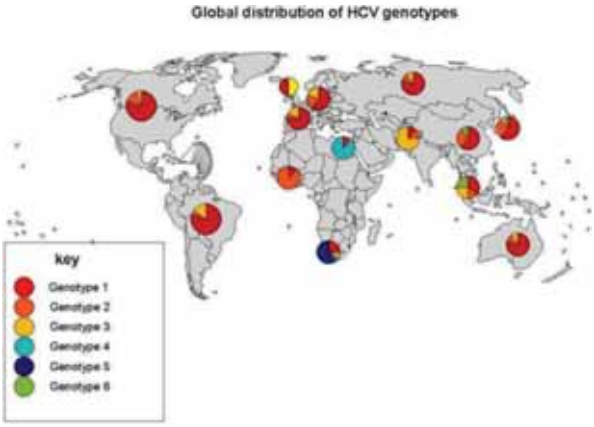
TV1-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HCV Real-TM Qual** Complete Real Time Test with Ribo-Sorb extraction kit (25 µl Reaction Mix)	**R**	100	2 x10^2 IU/mL
TV1-100FRT C SA, RG, iQ, SC,MX, A,IL,B,LC	**HCV Real-TM Qual** Complete Real Time Test with Ribo-Virus column kit (25 µl Reaction Mix)	**R**	100	1 x10^2 IU/mL
V1-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HCV Real-TM Qual** Real Time PCR kit with the RNA extraction controls (25 µl Reaction Mix)	**R**	100	50 IU/mL
TV1-64FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HCV Real-TM Qual** Complete Real Time Test with Ribo-Sorb extraction kit (50 µl Reaction Mix)	**R**	64	1 x10^2 IU/mL
V1-64FRT SA, RG, iQ, MX, A	**HCV Real-TM Qual** Real Time PCR kit with the RNA extraction controls (50 µl Reaction Mix)	**R**	64	20 IU/mL
TV1-96FRT SA, RG, iQ, MX, A	**HCV Real-TM Qual** Complete Real Time Test with Ribo-Sorb extraction kit (50 µl Reaction Mix)	**R**	96	1 x10^2 IU/mL
TV1-96FRT C SA, RG, iQ, MX, A	**HCV Real-TM Qual** Complete Real Time Test with Ribo-Virus column kit (50 µl Reaction Mix)	**R**	96	1 x10^2 IU/mL
V1-96FRT SA, RG, iQ, MX, A	**HCV Real-TM Qual** Real Time PCR kit with the RNA extraction controls (50 µl Reaction Mix)	**R**	96	20 IU/mL
TV1-100/2FRT SA, RG, iQ, SC,MX, A,IL,B,	**HCV Real-TM Quant** Complete Real Time Test with Ribo-Sorb extraction kit (25 µl Reaction Mix)	**R**	100	Linearity: 3 x10^2 - 5 x10^7 IU/mL
V1-100/2FRT SA, RG, iQ, SC,MX, A,IL,B	**HCV Real-TM Quant** Real Time PCR kit with the RNA extraction controls (25 µl Reaction Mix)	**R**	100	Linearity: 50 - 5 x10^7 IU/mL
TV1-100/2FRT C SA, RG, iQ, SC,MX, A,IL,B	**HCV Real-TM Quant** Real Time PCR kit with Ribo-Virus column extraction kit (25 µl Reaction Mix)	**R**	100	Linearity: 2 x10^2 - 5 x10^7 IU/mL
TV1-48FRT SA, RG, iQ, MX, A	**HCV Real-TM Quant** Complete Real Time Test with Ribo-Sorb extraction kit (50 µl Reaction Mix)	**R**	48	Linearity: 2 x10^2 - 5 x10^7 IU/mL
TV1-48FRT C SA, RG, iQ, MX, A	**HCV Real-TM Quant** Complete Real Time Test with Ribo-Virus column kit (50 µl Reaction Mix)	**R**	48	Linearity: 1 x10^2 - 5 x10^7 IU/mL
V1-48FRT SA, RG, iQ, MX, A	**HCV Real-TM Quant** Real Time PCR kit with the RNA extraction controls (50 µl Reaction Mix)	**R**	48	Linearity: 20 - 5 x10^7 IU/mL
R05-100FRT SA, RG, iQ, MX, A	**IL28B rs17 / rs60 Real-TM** NEW Real Time amplification of	**R**	100	

Hepatitis C Virus Kits

V-1-50R	HCV - 240/440 IC (RT-PCR)	**A**	55	5 x10^2 IU/mL
V-1-100R	HCV - 240/440 IC (RT-PCR)	**A**	110	5 x10^2 IU/mL
TV1-100FEP	**HCV-FEP** Complete FEP Test with Ribo-Sorb extraction kit	**F**	100	5 x10^2 IU/mL
V1-100FEP	**HCV-FEP** Amplification and FEP detection kit	**F**	100	5 x10^2 IU/mL

Hepatitis C Virus Genotyping

HCV is classified into eleven major genotypes (designated 1-11), many subtypes (designated a, b, c, etc.), and about 100 different strains (numbered 1,2,3, etc.) based on the genomic sequence heterogeneity. Genotypes 1-3 have a worldwide distribution. Types 1a and 1b are the most common, accounting for about 60% of global infections. They predominate in Northern Europe and North America, and in Southern and Eastern Europe and Japan, respectively. Type 2 is less frequently represented than type 1. Type 3 is endemic in south-east Asia and is variably distributed in different countries. Genotype 4 is principally found in the Middle East, Egypt, and central Africa. The determination of the infecting genotype is important for the prediction of response to antiviral treatment: genotype 1 and 4 are generally associated with a poor response to interferon alone, whereas genotypes 2 and 3 are associated with more favourable responses. At patients with subtype 1b the disease progresses to a chronic condition 90 % of cases, in that time as with genotypes 2 and 3b in 33-50 %. In a number of works it is mentioned, that infection with 1b genotype have heavier current of disease with development of a cirrhosis and hepatocarcinoma.
The International Consensus European Association for the Study of the Liver (EASL) recommends before beginning of antiviral therapies to carry out a liver biopsies and to determine HCV genotype.



Hepatitis C Virus Genotyping Kits

R1-Gen SA, RG, iQ, SC,MX, A,IL,B	**HCV Real-TM Genotype** Real Time PCR kit with the RNA extraction controls	**R**	48	1 x10^2 IU/mL
R1-Gen-4X SA, RG, iQ, MX, SC, A	**HCV 1/2/3 Genotype Real-TM** Real Time PCR kit with the RNA extraction controls	**R**	48	1 x10^2 IU/mL
R1-Gen-6 SA, RG, iQ, SC,MX, A,IL,B	**HCV Genotype Plus (1a,1b, 2, 3a, 4, 5a, 6) Real-TM** Real Time PCR kit with the RNA extraction controls	**R**	48	1 x10^2 IU/mL
V-1-G/50R	HCV - Genotype 1a, 1b, 2, 3 (RT-PCR)	**A**	55	1 x10^3 IU/mL

Hepatitis D (HDV)

Hepatitis D virus (HDV) is RNA containing, hepatotropic viroid (uncompleted virus) belonging to Deltavirus family. HDV needs helper function of hepatitis B virus that provides to HDV proteins of the superficial membrane (HBsAg) that's why HDV can replicate itself only in presence of HBV. Transmission of HDV can occur either via simultaneous infection with HBV (coinfection) or via infection of an individual previously infected with HBV (superinfection). Both superinfection and coinfection with HDV results in more severe complications compared to infection with HBV alone. These complications include a greater likelihood of experiencing liver failure in acute infections and a rapid progression to liver cirrhosis, with an increased chance of developing liver cancer in chronic infections. In combination with hepatitis B virus, hepatitis D has the highest mortality rate of all the hepatitis infections of 20%.
Detection of HDV RNA by PCR allows detection of the causative agent in the period of introduction of infection before seroconversion, which is very important for early diagnostics.

Hepatitis D Virus Kits

TV3-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HDV Real-TM Qual** Complete Real Time Test with Ribo-Sorb extraction kit	**R**		50	5 x10^2 copies/mL
TV3-50FRT C SA, RG, iQ, SC,MX, A,IL,B,LC	**HDV Real-TM Qual** Complete Real Time Test with Ribo-Virus column kit	**R**		50	3 x10^2 copies/mL
V3-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HDV Real-TM Qual** Real Time PCR kit with the DNA extraction controls	**R**		50	1 x10^2 copies/mL
V3-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HDV Real-TM Qual** Real Time PCR kit with the DNA extraction controls	**R**		100	1 x10^2 copies/mL
V3-100/2FRT SA, RG, iQ, SC,MX, A, B	**HDV Real-TM Quant** Real Time PCR kit with the DNA extraction controls	**R**		100	1 x10^2 copies/mL
V-3-50R	HDV 255/500 IC (RT-PCR)	**A**		55	2 x10^3 copies/mL
TV3-50FEP	**HDV-FEP** Complete FEP Test with Ribo-Sorb extraction kit	**F**		50	5 x10^2 copies/mL
V3-100FEP	**HDV-FEP** Amplification and FEP detection kit	**F**		100	5 x10^2 copies/mL
TV56-100FRT SA, RG, iQ, SC,MX, A,B	**HBV/HDV Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**		100	2 x10^2 /5-10^2 copies/mL
TV56-100FRT C SA, RG,iQ,SC,MX, A,B	**HBV/HDV Real-TM** Complete Real Time Test with Ribo-Virus column kit	**R**		100	1 x10^2 /3-10^2 copies/mL
V56-100FRT SA, RG, iQ, SC,MX, A,B	**HBV/HDV Real-TM** Real Time PCR kit with the DNA/RNA extraction controls	**R**		100	20/100 copies/mL

Hepatitis G (HGV)

Hepatitis G virus (HGV) is another virus causing post-transfusion hepatitis. The same as hepatitis C virus, hepatitis G virus belongs to the flaviviruses. The hepatitis G virus is detected with the help of PCR (serological methods are less reliable). It's detected in 1.5 percent of donors and in some patients with acute fulminant and chronic hepatitis. The coinfection of hepatitis G with hepatitises B, C or D is detected frequently.

Hepatitis G Virus Kits

V-2-50R	HGV 340/625 IC (RT-PCR)	**A**	CE	55	2 x10^3 copies/mL
V-2-100R	HGV 340/625 IC (RT-PCR)	**A**		110	2 x10^3 copies/mL
TV2-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HGV Real-TM** Real Time PCR kit with Ribo-Sorb extraction kit	**R**		50	5 x10^2 copies/mL
V2-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HGV Real-TM** Real Time PCR kit with the DNA extraction controls	**R**		50	3 x10^2 copies/mL

HCV/HBV/HIV Real-TM

Transfusion-associated transmission risk of infectious diseases has been reported worldwide. Over the past two decades, a long series of specific and non-specific measures have been introduced into the screening of blood donations in order to reduce the residual risk of transmission of bloodborne viruses. The latest specific measure has been viral nucleic acid testing (NAT), introduced by the European plasma industry in 1995, and subsequently introduced for blood donations in many countries. NAT was implemented to reinforce the safety of the blood supply; it can detect acute viral infections during the 'window period', that are not detected by the serological screening methods.

It should be noted that, contrary to the classical serologic screening methods that are always used in single donation testing, current NAT procedures usually demand pooling of blood donation samples due to the format of the employed platforms. Today, NAT implementation for HCV, HBV and HIV-1 is taken for granted in most high-income countries to ensure the maximal viral safety.

The **HCV/HBV/HIV Real-TM** kit is a qualitative in vitro test for comprehensive single-assay Real Time detection of Human Immunodeficiency Virus (HIV) RNA, hepatitis C Virus RNA and hepatitis B Virus DNA in human plasma with simultaneous detection of Internal Control (IC). This kit is intended for use as a donor screening test to detect HIV RNA, HCV RNA and HBV DNA in plasma from individual donors which may be screened as individual samples or may be tested in pools comprised of equal aliquots. The recommended quantity of the samples in one pool must be not more than 5-10 (100-200 µl of the plasma for each sample).

ADVANTAGES OF SACACE™ HCV/HBV/HIV REAL-TM KIT

- Simultaneously amplification (multiplex) in 1 PCR tube of nucleic acids from HIV, HCV, HBV;
- Separate real-time detection and differentiation of nucleic acids from HIV, HCV and HBV on different channels (FAM – HCV, JOE/HEX/Cy3 – HIV, ROX – HBV, Cy5 – internal control);
- Optimization on different equipment (SmartCycler (Cepheid), RotorGene 3000/6000 (Corbett Research), iQ5 (BioRad), ABI 7500 (Applied Biosystems) , Mx3005 (Stratagene), ect.);
- Possibility of pooling (5-10 samples in pool format is recommended);
- High sensitivity*:
  - HCV RNA – 10 IU/ml
  - HBV DNA – 5 IU/ml
  - HIV RNA – 20 copies/ml

* values obtained using the "Magno-Virus" extraction kit (Sacace REF K-2-16/1000)

Sample	Fam	Joe / HEX/Cy3	Rox/ TexasRed	Cy5	Interpretation
NCS (Neg extr. control)	NEG	NEG	NEG	POS	Valid result
HCV/HBV/HIV Rec C+ (Pos extr. control)	POS	POS	POS	POS	Valid result
TE-buffer (Neg. PCR Control)	NEG	NEG	NEG	NEG	Valid result
HCV/HBV/HIV C+ (Pos PCR control)	POS	POS	POS	POS	Valid result
Sample 1	POS	NEG	NEG	POS	HCV RNA detected
Sample 2	NEG	POS	NEG	POS	HIV RNA detected
Sample 3	NEG	NEG	POS	POS	HBV DNA detected
Sample 4	NEG	NEG	NEG	NEG	Invalid result

Hepatitis C / Hepatitis B / HIV multiplex detection

V50-100FRT SA, RG, iQ, MX, A, SC	**HCV/HBV/HIV Real-TM** Real Time PCR Test with RNA/DNA extraction controls	**R**	100	10/5/20 IU/mL
V62-100FRT RG, SA	**HCV/HBV/HIV1/HIV2 Real-TM** NEW Real Time PCR Test	**R**	100	10/5/20 IU/mL

Human immunodeficiency virus (HIV)

HIV is a lentivirus (a member of the retrovirus family) differentiated on structural and antigenic properties into two virus types: HIV-1 and HIV-2. HIV-2 occurs considerably less often than HIV-1. In accordance with 1991 Nomenclature, there are three independent HIV-1 groups: «M» (main); «O» (outlier); «N» (non-V/non-O). In addition to this, there are the so-called "circulating recombinant forms (CRF)" viruses with a mosaic structure of the genome, elements of which are typical for representatives of various subtypes. Groups O and N are less widely spread and occur in African countries population. Group M includes 11 subtypes: A1, A2, B, C, D, F1, F2, G, H, J, K.

Transmission ways of the virus are very important for the virus spread. HIV is transmitted by three ways: at heterosexual and homosexual sexual intercourse, parenteral with blood and blood products and vertically: from the infected mother to the child by an intrauterine way, during the child delivery or soon after the childbirth at breast feeding.

One of the most effective current methods of direct HIV detection is specific amplification of nucleic acids in vitro by polymerase chain reaction (PCR). This method has a lot of advantages:

- detection of virus DNA/RNA allows reducing the length of the "serological window;
- PCR is an indispensable approach for HIV-diagnostics in children born from HIV-infected mothers:
- determination of HIV RNA in the blood plasma (viral load) is an obligatory procedure to monitoring of the therapy effectiveness

ADVANTAGES OF SACACE™ HIV REAL-TM QUANT KIT

- Application of primers and probes in the most conservative area of the HIV-1 polymerase gene that allow effective detection of the majority of HIV-1 subtypes.
- Use of the Quantitative Internal Control (concentration reported in Data Card) which allows not only to monitor the extraction procedure and to check possible PCR inhibition but also to verify possible losses of the RNA during extraction procedure thus enabling to calculate precisely the HIV viral load.
- Presence in the reagents supplied with the kit of two positive controls of the extraction: Pos1 – low viral load and Pos2 – medium viral load that are quantitatively described in Data Card and allow quality control of the conducted analysis.
- Use of Quantitative Standards for HIV RNA and HIV IC enabling to calculate precisely the HIV viral load.
- The reagent kit possesses a wider linear range of measurements (from 25 to 5 x 10^6 copies/ml).

HIV RNA Quant Kits

TR-VM-100FRT SA, RG, iQ, MX, A,IL,B	**HIV RNA Real-TM Quant** Complete Real Time Test with Ribo-Sorb extraction kit (25 µl Reaction Mix)	**R**	100	Linearity: 2,5 x10^2- 5 x10^6 copies/mL
TR-VM-100FRT C SA, RG, iQ, MX, A,IL,B	**HIV RNA Real-TM Quant** Complete Real Time Test with Ribo-Virus column kit (25 µl Reaction Mix)	**R**	100	Linearity: 2,0 x10^2- 5 x10^6 copies/mL
R-VM-100FRT SA, RG, iQ, MX, A,IL,B	**HIV RNA Real-TM Quant** Real Time PCR kit with the RNA extraction controls (25 µl Reaction Mix)	**R**	100	Linearity: 50- 5 x10^6 copies/mL
TR-VM-48FRT SA, RG, iQ, MX, A	**HIV RNA Real-TM Quant** Complete Real Time Test with Ribo-Sorb extraction kit (50 µl Reaction Mix)	**R**	48	Linearity: 2,0 x10^2- 5 x10^6 copies/mL
TR-VM-48FRT C SA, RG, iQ, MX, A	**HIV RNA Real-TM Quant** Complete Real Time Test with Ribo-Virus column kit (50 µl Reaction Mix)	**R**	48	Linearity: 1,0 x10^2- 5 x10^6 copies/mL
R-VM-48FRT SA, RG, iQ, MX, A	**HIV RNA Real-TM Quant** Real Time PCR kit with the RNA extraction controls (50 µl Reaction Mix)	**R**	48	Linearity: 25 - 5 x10^6 copies/mL

HIV DNA

HIV-infection diagnostics in children born from HIV-infected mothers is difficult due to the fact that mother's antibodies to HIV persist in such children's blood for a long time. But not every child born from the infected mother is infected with HIV, in spite of the fact that children are subjected to high risk of HIV infection in the intrauterine period, during the delivery and breast feeding. If no preventive measures are taken, the risk of mother-to-child HIV transmission in children makes 20-45 percent. Today effective measures intended at prevention of vertical HIV transmission can reduce risk to 1-2 percent.
The problem of earlier HIV-infection diagnostics in newborns was solved several years ago with development of molecular-genetic methods that allow detection of HIV genome fragments in the peripheral blood at early infection stages. The evidence was obtained that the HIV provirus DNA is determined by the age of one month in the majority of children and practically in all - by the age of 6 months. Based on these data it's recommended to conduct the polymerase chain reaction (PCR) for HIV provirus DNA for the first time within 48 hours after birth and on the 6-8th week of the child's life irrespective of the result of the first examination. The final decision about HIV-infection presence in child is made not later than the age of 6 months of the child.

TR-V1-D SA, RG, iQ, MX, SC, A	**HIV DNA Real-TM Qual** Complete Real Time Test with Hemo-Sorb extraction kit	**R**		100	1 x10^2 copies/ml

HIV associated Infections Kits

Hypersensitivity reaction to abacavir is strongly associated with the presence of the HLA-B*5701 allele. Abacavir (Ziagen, also in the combination pills Kivexa and Trizivir) is a potent antiretroviral drug that is a popular choice for first-line antiretroviral HIV therapy. Its main disadvantage is a hypersensitivity reaction that occurs in between 5% - 8% of patients treated with this drug. Symptoms involve feeling generally unwell, fever, rash, and stomach problems. They quickly disappear if treatment with the drug is stopped, but starting the treatment again with abacavir, after a hypersensitivity reaction can lead to a potentially fatal drop in blood pressure.
HLA-B*5701 Real-TM test can predict who will develop a severe allergic reaction to the anti-HIV drug abacavir as the presence of HLA-B*5701 is significantly associated with an abacavir hypersensitivity.

H53-50FRT SA, RG, iQ, SC,MX, A,IL,B	**HLA B*5701 Real-TM** Real Time Amplification Kit	**R**		50	1 x10^3 cells/ml
H53-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HLA B*5701 Real-TM** Real Time Amplification Kit	**R**	CE	100	1 x10^3 cells/ml

Pneumocystis pneumonia (PCP) or pneumocystosis is a form of pneumonia, caused by the yeast-like fungus (which had previously been erroneously classified as a protozoan) *Pneumocystis jirovecii (carinii).*
P jiroveci is now one of several organisms known to cause life-threatening opportunistic infections in patients with advanced HIV infection worldwide. An accurate diagnosis requires access to modern medical care not available worldwide. Currently, the frequency of documented Pneumocystis infection is increasing in Africa, with Pneumocystis organisms found in up to 80% of infants with pneumonia who have HIV infection.

TP2-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Pneumocystis jirovecii (carinii) Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		50	5 x10^2 copies/ml
P2-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Pneumocystis jirovecii (carinii) Real-TM** Real Time Amplification kit	**R**	CE	50	5 x10^2 copies/ml

Cryptococcosis, caused by Cryptococcus neoformans, is the most common fungal disease in HIV infected persons and it is the AIDS-defining illness in 60-70% of HIV infected patients.

F4-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Cryptococcus neoformans Real-TM** Real Time Amplification Kit	**R**		100	

Human Papilloma Virus

Cervical cancer (CC) is one of the most widely spread oncological pathologies that ranks second by the incidence in women in the world. Each year about 600 thousand of new CC cases are registered in the world with more than 250 thousand lethal outcomes. The virus nature of this cancer is confirmed by the World Health Organization and HPV is detected practically in 100 percent of cases of cervical precancer and cancer. Based on the frequency of detection of HPV genotypes from different grades of Cervical Intraepithelial Neoplasia (CIN Grades I – III), HPV genotypes are subdivided into High-risk HPV types (16, 18, 31 and 45), Intermediate-risk types (33, 35, 39, 51, 52, 56, 58, 59, and 68), and Low-risk types (6, 11, 42-44).
Owing to the fact that the cervical cancer (CC) has a long development period and a fail-safe recognizable pre-clinic phase there's a possibility to detect and prevent the disease on its early stage.

Kits for screning of high carcinogenic risk HPV genotypes

The kit **HPV High Risk Screen Real-TM Quant** is an in vitro Real Time amplification test for quantitative detection of 12 types of HPV (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59). It being known, that the parameter of viral load has a prognostic value and the viral load less than 10^5 HPV genomic equivalents in the swab or 10^3 genomic equivalents for 10^5 cells is considered as insignificant and indicates the presence of transitory infection, however such level of load may have a value only in cases of treatment monitoring. Viral load of more than 10^5 genomic equivalents for 10^5 cells is considered to be important with high significance and indicates the existence of dysplastic changes or high risk of their occurrence. Quantitative detection of viral load allows to evaluate the character of the infection and to make a forecast concerning the stage of the disease.

HPV High Risk Screen Kits

TV31-100/2FRT SA, RG, iQ, MX, A	**HPV High Risk Screen Real-TM Quant** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	5 x10^2 copies/ml
V31-100/2FRT SA, RG, iQ, MX, A	**HPV High Risk Screen Real-TM Quant** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
TV31-100/2FRT 2X SA, RG, iQ, SC, MX, A,IL,B	**HPV High Risk Screen Real-TM 2X Quant (2 channels)** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	5 x10^2 copies/ml
V31-100/2FRT 2X SA, RG, iQ, SC, MX, A,IL,B	**HPV High Risk Screen Real-TM 2X Quant (2 channels)** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
V-26-50F	HPV High Risk Screen	**A**	CE	55	1 x10^3 copies/ml
V-26-100F	HPV High Risk Screen	**A**		110	1 x10^3 copies/ml
TV31-100FEP	**HPV High Risk Screen FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		100	1 x10^3 copies/ml
V31-100FEP	**HPV High Risk Screen FEP** Amplification and FEP detection kit	**F**		100	1 x10^3 copies/ml

Kits for typing of high carcinogenic risk HPV genotypes

The kit **HPV High Risk Typing Real-TM** is an *in vitro* multiplex Real Time amplification test for qualitative detection and genotyping of *Human Papillomavirus* (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59*)* in the urogenital swabs and biopsies.

date		Matrix for comparison				Reaction Ct-Results				Results
NN	Sample Name	Fam	Joe	Rox	Cy5	Fam Ct	Joe Ct	Rox Ct	Cy5 Ct	
1		16	31	18	IC	26,1	20,1		27,3	16,31
		39	45	59	IC				26,2	
		33	35	56	IC	27,2	31,6		27,1	33,35
		58	52	51	IC	32,6			26,7	58
2		16	31	18	IC				29,0	
		39	45	59	IC	22,9	25,3		29,1	39,45
		33	35	56	IC			16,9	25,5	56
		58	52	51	IC		28,8		28,6	52
3	+	16	31	18	IC	31,2	28,7	28,7	25,3	OK
	+	39	45	59	IC	30,1	31,9	28,8	25,7	OK
	+	33	35	56	IC	29,3	31,9	29,1	25,2	OK
	+	58	52	51	IC	30,5	28,2	30,1	25,7	OK
4	-	16	31	18	IC					OK
	-	39	45	59	IC					OK
	-	33	35	56	IC					OK
	-	58	52	51	IC					OK

The kit **HPV High Risk Typing Real-TM** is based on two major processes: isolation of DNA from specimens and multiplex Real Time amplification of 4 tubes for each sample. Each tube contains primers directed against regions of three *HPV* types and β-globine gene used as Internal Control. If the swab is not correctly prepared (high quantity of mucous or insufficient quantity of epitelial cells) the Internal Control will not be detected.

HPV High Risk Typing Kits

TV26-100FRT SA, RG, MX,iQ,A, IL	**HPV High Risk Typing Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	5 x10^2 copies/ml
V26-100FRT SA, RG, MX,iQ,A, IL	**HPV High Risk Typing Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
TV12-100FRT SA, RG, SC,MX,iQ,A, IL,B	**HPV 16/18 Real-TM Quant** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	5 x10^2 copies/ml
V12-100FRT SA, RG, iQ, SC, MX, A,IL,B	**HPV 16/18 Real-TM Quant** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
V-25-50F	HPV High Risk Typing	A	CE	55	1 x10^3 copies/ml
V-12-50R	Human Papillomavirus 16/18	A	CE	55	5 x10^2 copies/ml
V-12-100R	Human Papillomavirus 16/18	A		110	5 x10^2 copies/ml
V-13-100R	Human Papillomavirus 31/33	A		110	5 x10^2 copies/ml
V-14-100R	Human Papillomavirus 35/45	A		110	5 x10^2 copies/ml
TV12-100FEP	**HPV 16/18 FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		100	5 x10^2 copies/ml
V12-100FEP	**HPV 16/18 FEP** Amplification and FEP detection kit	**F**		100	5 x10^2 copies/ml
V26P-100FRT SA	**HPV Quant-21 genotypes Real-TM** NEW Real Time Amplification kit	**R**		24	5 x10^2 copies/ml

Low carcinogenic risk

A group of **low carcinogenic risk HPV** is represented by more than 12 genotypes and they are called “low risk” because they cannot cause cervical cancer. Sometimes low-risk HPV types can cause visible changes in the genital area, called genital warts. Genital warts are growths or bumps in the genital areas of men and women. They usually are painless. They may be raised, flat, small or large, and single or multiple.Among low risk HPV the genotypes **6** and **11** are of greatest importance as they are responsible for the overwhelming amount of low-carcinogenic pointed condylomas of genital organs and for more than 90 percent of cases of condylomatosis of the larynx in children.

HPV Low Risk Typing Kits

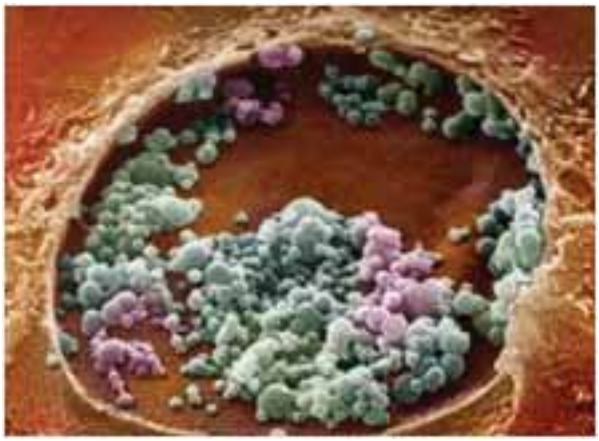
TV11-100FRT SA, RG, iQ, SC, MX, A,IL,B	**HPV 6/11 Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	5 x10^2 copies/ml
V11-100FRT SA, RG, iQ, SC, MX, A,IL,B	**HPV 6/11 Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
V-11-50F	HPV 6/11	A	CE	55	5 x10^2 copies/ml
TV11-100FEP	**HPV 6/11 FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		100	5 x10^2 copies/ml
V11-100FEP	**HPV 6/11 FEP** Amplification and FEP detection kit	**F**		100	5 x10^2 copies/ml

Sexually Transmitted Diseases

STDs (sexually transmitted diseases) refer to a variety of bacterial, viral and parasitic infections that are acquired through sexual activity. Some STDs, such as syphilis and gonorrhea, have been known for centuries — while others, such as HIV, have been identified only in the past few decades. STDs are caused by more than 25 infectious organisms. As more organisms are identified, the number of STDs continues to expand. Common STDs include: chlamydia, gonorrhea, herpes, HIV, HPV, syphilis, gardnerella, mycoplasma and trichomoniasis. Approximately 18.9 million new cases of STDs (excluding HIV) occur each year in the U.S. More than half of all people will be infected with an STD at some point in their lifetime. Many STDs affecting women show no early signs or symptoms. As a result, they go undetected and untreated until complications arise. The consequences of untreated STDs are often more serious in women, including: infertility, tubal pregnancy, chronic pain, cervical cancer and other complications. For example, pelvic inflammatory disease (PID), a preventable complication from certain STDs, occurs in more than one million women each year. Early screening, diagnosis, counseling and treatment can stop the spread of STDs.

Enzyme immunoassay(EIA) is the diagnostic method most commonly used for the laboratory diagnosis of STD infections, but EIA has a lower detection limit of 10000 elementary bodies and thus lacks sensitivity required for a screening assay, especially in asymptomatic men. Culture has been the “gold standard” for the diagnosis of many STD and have high sensitivity and specificity however due to a slow-growing tendency it takes 2-3 days to get a result and also requires an invasively taken specimen. Nucleic acid based amplification assays using polymerase chain reaction(PCR) have a lower detection limit of one to 10 elementary bodies and specificities comparable with culture. They also offer all the advantages of non-culture tests in terms of specimen transport, batching, and rapid processing time of approximately 2-3 hours . The improved sensitivity of these assays allows the use of non-invasive specimens such as first catch urine (FCU) specimens. PCR tests using FCU specimens have been shown to have sensitivities ranging from 87% to 97% for men and 82% to 93% for women with specificities of 98–100%.

Chlamydia trachomatis



C. trachomatis can be differentiated into 18 serovars (serologically variant strains) based on monoclonal antibody–based typing assays. Serovars A, B, Ba, and C are associated withtrachoma (a serious eye disease that can lead to blindness), serovars D-K are associated with genital tract infections, and L1-L3 are associated with lymphogranuloma venereum (LGV). Chlamydia trachomatis is an obligate intracellular pathogen (i.e. the bacterium lives within human cells) and can cause numerous disease states in both men and women. Both sexes can display urethritis, proctitis (rectal disease and bleeding), trachoma, and infertility. The bacterium can cause prostatitis and epididymitis in men.
In women, cervicitis, pelvic inflammatory disease (PID), ectopic pregnancy, and acute or chronic pelvic pain are frequent complications. C. trachomatis is also an important neonatal pathogen, where it can lead to infections of the eye (trachoma) and pulmonary complications.

Chlamydia trachomatis Kits

TB1-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Chlamydia trachomatis Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**		100	5 x10^2 copies/ml
B1-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Chlamydia trachomatis Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
B202-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Chlamydia trachomatis Quant Real-TM** Real Time Amplification kit	**R**		50	2,5 x10^2 copies/ml
B86-100FRT SA, RG, iQ, SC,MX, A	**Chlamydia trachomatis A, B, C Typing Real-TM** NEW Real Time Amplification kit	**R**		100	1 x10^3 copies/ml
B-1-50R	Chlamydia trachomatis 330/740 IC	A		55	1 x10^3 copies/ml
B-1-100R	Chlamydia trachomatis 330/740 IC	A		110	1 x10^3 copies/ml

Chlamydia trachomatis Kits

TB1-100FEP	**Chlamydia trachomatis-FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		100	5 x10^2 copies/ml
B1-100FEP	**Chlamydia trachomatis-FEP** Amplification and FEP detection kit	**F**	CE	100	5 x10^2 copies/ml

Neisseria gonorrhoeae

Gonorrhea, which is caused by ***Neisseria gonorrhoeae***, is an important public health problem and is the most common reportable infectious disease. An estimated 700,000 new gonococcal infections occur annually in the United States. Gonorrhea is most frequently spread during sexual contact. However, it can also be transmitted from the mother's genital tract to the newborn during birth, causing ophthalmia neonatorum and systemic neonatal infection. The incubation period is usually 2-8 days.

Neisseria gonorrhoeae Kits

TB5-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Neisseria gonorrhoeae Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	5 x10^2 copies/ml
B5-100FRT RG, iQ, SC,MX, A,IL,B,LC	**Neisseria gonorrhoeae Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
B204-50FRT RG, iQ, SC,MX, A,IL,B	**Neisseria gonorrhoeae Quant Real-TM** Real Time Amplification kit	**R**	CE	50	5 x10^2 copies/ml
B-5-50R	Neisseria gonorrhoeae 370/660 IC	A	CE	40+15	1 x10^3 copies/ml
B-5-100R	Neisseria gonorrhoeae 370/660 IC	A		80+30	1 x10^3 copies/ml
TB5-100FEP	**Neisseria gonorrhoeae-FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		100	5 x10^2 copies/ml
B5-100FEP	**Neisseria gonorrhoeae-FEP** Amplification and FEP detection kit	**F**		100	5 x10^2 copies/ml

Ureaplasma species and Mycoplasma

Ureaplasma species and Mycoplasma are causes of nonchlamydial nongonococcal urethritis. Mycoplasma species do not cause vaginitis, but they may proliferate in patients with bacterial vaginosis and may contribute to the condition. *M hominis* has been isolated from the endometria and fallopian tubes of approximately 10% of women with salpingitis; *M genitalium* may also be involved in pelvic inflammatory disease and cervicitis. *Ureaplasma species* can cause placental inflammation and may invade the amniotic sac early, causing persistent infection and adverse pregnancy outcomes, including premature birth. The two *Ureaplasma biovars*, *Ureaplasma urealyticum* and *Ureaplasma parvum*, have now been designated as separate species.

Ureaplasma Kits

TB2-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Ureaplasma species Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	5 x10^2 copies/ml
B2-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Ureaplasma species Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
B2-100FRT Q SA, RG, iQ, SC,MX, A,IL,B	**Ureaplasma species Quant Real-TM** Real Time Amplification kit	**R**		100	5 x10^2 copies/ml
B19-100FRT SA, RG, iQ, SC,MX, A,IL,B	**Ureaplasma parvum/urealyticum Real-TM** Real Time Amplification kit	**R**	CE	100	1 x10^3 copies/ml
B19-100FRT Q SA, RG, iQ, SC,MX, A,IL,B	**Ureaplasma parvum/urealyticum Quant Real-TM** Real Time Amplification kit	**R**		100	1 x10^3 copies/ml
B-2-50R	Ureaplasma urealyticum 450/750 IC	A	CE	55	1 x10^3 copies/ml
TB2-100FEP	**Ureaplasma species-FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		100	1 x10^3 copies/ml
B2-100FEP	**Ureaplasma species-FEP** Amplification and FEP detection kit	**F**		100	1 x10^3 copies/ml
TB19-100FEP	**Ureaplasma parvum/urealyticum-FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		100	1 x10^3 copies/ml
B19-100FEP	**Ureaplasma parvum/urealyticum-FEP** Amplification and FEP detection kit	**F**		100	1 x10^3 copies/ml
TB2-100FRT Q SA, RG, iQ, SC,MX, A,IL,B	**Ureaplasma species Quant Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**		100	5 x10^2 copies/ml
B2-100FRT Q SA, RG, iQ, SC,MX, A,IL,B	**Ureaplasma species Quant Real-TM** Real Time Amplification kit	**R**		100	5 x10^2 copies/ml

Mycoplasma Kits

TB3-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Mycoplasma hominis Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	5 x10^2 copies/ml
B3-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Mycoplasma hominis Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
B201-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Mycoplasma hominis Quant Real-TM** Real Time Amplification kit	**R**	CE	50	5 x10^2 copies/ml
TB4-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Mycoplasma genitalium Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	5 x10^2 copies/ml
B4-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Mycoplasma genitalium Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
TB4-100FRT Q SA, RG, iQ, SC,MX, A,IL,B	**Mycoplasma genitalium Quant Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**		100	5 x10^2 copies/ml
B4-100FRT Q SA, RG, iQ, SC,MX, A,IL,B	**Mycoplasma genitalium Quant Real-TM** Real Time Amplification kit	**R**		100	5 x10^2 copies/ml
B-3-50R	Mycoplasma hominis 330/550 IC	A	CE	55	1 x10^3 copies/ml
B-4-50R	Mycoplasma genitalium 280/550 IC	A	CE	55	1 x10^3 copies/ml
TB3-100FEP	**Mycoplasma hominis-FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		100	5 x10^2 copies/ml
B3-100FEP	**Mycoplasma hominis-FEP** Amplification and FEP detection kit	**F**		100	5 x10^2 copies/ml
TB4-100FEP	**Mycoplasma genitalium-FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		100	5 x10^2 copies/ml
B4-100FEP	**Mycoplasma genitalium-FEP** Amplification and FEP detection kit	**F**		100	5 x10^2 copies/ml
TB48-100FEP	**Mycoplasma hominis/Gardnerella vaginalis FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		100	1 x10^3 copies/ml
B48-100FEP	**Mycoplasma hominis/Gardnerella vaginalis FEP** Amplification and FEP detection kit	**F**		100	1 x10^3 copies/ml

Trichomonas vaginalis

Trichomonas vaginalis trophozoite is oval as well as flagellated. It is slightly larger than a white blood cell, measuring 9 x 7 µm. Five flagella arise near the cytostome; four of these immediately extend outside the cell together, while the fifth flagellum wraps backwards along the surface of the organism. Trichomoniasis is the most common, curable sexually transmitted disease in the world. It is also one of the three most common vaginal infections in women. According to the World Health Organization's annual estimates, there are an estimated 7.4 million trichomoniasis cases each year in the United States, with over 180 million cases reported worldwide. Trichomoniasis is caused by a one-celled parasite, Trichomonas vaginalis. Trichomoniasis affects both women and men. The most common location of infection in women is the vagina, and in men it is the urethra. In women, the symptoms of trichomoniasis may include yellow-green vaginal discharge, fishy odor, pain during urination and sexual intercourse, and genital itching or irritation. Men usually do not show trichomoniasis symptoms, but some may experience discharge from the penis or burning during urination or ejaculation.

Trichomonas vaginalis

TB6-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Trichomonas vaginalis Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	5 x10^2 copies/ml
B6-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Trichomonas vaginalis Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
B-6-50R	Trichomonas vaginalis 240/520 IC	A	CE	55	1 x10^3 copies/ml
B-6-100R	Trichomonas vaginalis 240/520 IC	A		110	1 x10^3 copies/ml
TB6-100FEP	**Trichomonas vaginalis-FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		100	5 x10^2 copies/ml
B6-100FEP	**Trichomonas vaginalis-FEP** Amplification and FEP detection kit	**F**		100	5 x10^2 copies/ml

Sexually trasmitted Diseases: Multiplex PCR Kits

TB43-100FRT SA, RG, iQ, SC,MX, A,	**Chlamydia trachomatis/Ureaplasma/M.hominis Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	R		100	5 x10^2 copies/ml
B43-100FRT SA, RG, iQ, MX, SC, A	**Chlamydia trachomatis/Ureaplasma/M.hominis Real-TM** Real Time Amplification kit	R	CE	100	5 x10^2 copies/ml
TB46-100FRT SA, RG, iQ, MX, SC, A	**Chl. trachomatis/Ureaplasma/M.genitalium Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	R		100	5 x10^2 copies/ml
B46-100FRT SA, RG, iQ, MX, SC, A	**Chl. trachomatis/Ureaplasma/M.genitalium Real-TM** Real Time Amplification kit	R	CE	100	5 x10^2 copies/ml
TB60-100FRT RG	**C.trachomatis/Ureapl./M.hominis/M.genitalium Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	R		100	5 x10^2 copies/ml
B60-100FRT RG	**C.trachomatis/Ureapl./M.hominis/M.genitalium Real-TM** Real Time Amplification kit	R	CE	100	5 x10^2 copies/ml
TB61-100FRT RG	**N.gonor./C.trachomatis/T.vaginalis/M.genitalium Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	R		100	5 x10^2 copies/ml
B61-100FRT RG	**N.gonor./C.trachomatis/T.vaginalis/M.genitalium Real-TM** Real Time Amplification kit	R	CE	100	5 x10^2 copies/ml
TB65-100FRT SA, RG, iQ, SC,MX, A	**T. vaginalis/N.gonorrhoeae Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	R		100	5 x10^2 copies/ml
B65-100FRT SA, RG,iQ,MX,SC,A	**T. vaginalis/N.gonorrhoeae Real-TM** Real Time Amplification kit	R	CE	100	5 x10^2 copies/ml
TB75-100FRT SA, RG,iQ,MX,SC,A	**Ureaplasma parvum/Ur.urealyticum/M.hominis Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	R		100	5 x10^2 copies/ml
B75-100FRT SA, RG,iQ,MX,SC,A	**Ureaplasma parvum/Ur.urealyticum/M.hominis Real-TM** Real Time Amplification kit	R	CE	100	5 x10^2 copies/ml
B75-100FRT Q SA, RG,iQ,MX,SC,A	**Ur. parvum/Ur.urealyticum/M.hominis Quant Real-TM** Real Time Amplification kit	R		100	5 x10^2 copies/ml
B83-100FRT SA, RG,iQ,MX,SC,A	**Tr. vaginalis/N.gonorrhoeae/Chl.trachomatis Real-TM** Real Time Amplification kit	R		100	5 x10^2 copies/ml
TB67-100FRT SA, RG,iQ,MX,SC,A	**Chl. trachomatis/N.gonorrhoeae/M.genitalium Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	R		100	5 x10^2 copies/ml
B67-100FRT SA, RG,iQ,MX,SC,A	**Chl. trachomatis/N.gonorrhoeae/M.genitalium Real-TM** Real Time Amplification kit	R	CE	100	5 x10^2 copies/ml
B87-100FRT SA, RG,iQ,MX,SC,A	**HSV I / HSV II / Treponema pallidum** NEW Real Time Amplification kit	R		100	5 x10^2 copies/ml
TB47-100FEP	**Chlamydia trachomatis/Ureaplasma spp-FEP** Complete FEP Test with DNA-Sorb-A extraction kit	F		100	5 x10^2 copies/ml
B47-100FEP	**Chlamydia trachomatis/Ureaplasma spp-FEP** Amplification and FEP detection kit	F		100	5 x10^2 copies/ml

Candida albicans

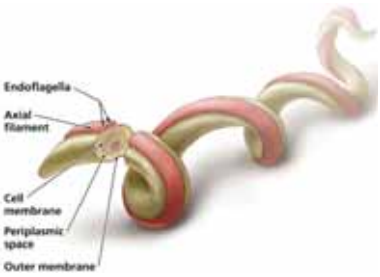
Candida albicans is a diploid fungus (a form of yeast) and a causal agent of opportunistic oral and genital infections in humans. C. albicans is commensal and is among the gut flora, the many organisms that live in the human mouth and gastrointestinal tract. Under normal circumstances, C. albicans lives in 80% of the human population with no harmful effects, although overgrowth results in candidiasis. Candidiasis is often observed in immunocompromised individuals such as HIV-positive patients but may also occur in the blood and in the genital tract. Candidiasis, also known as “thrush”, is a common condition, usually easily cured in people who are not immunocompromised. To infect host tissue, the usual unicellular yeast-like form of C. albicans reacts to environmental cues and switches into an invasive, multicellular filamentous forms.

Candida albicans Kits

TF1-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Candida albicans Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**	CE	100	1 x10^3 copies/ml
F1-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Candida albicans Real-TM** Real Time Amplification kit	**R**	CE	100	1 x10^3 copies/ml
TF3-100FRT SA, RG, iQ, MX, SC, A	**Candida albicans/C.glabrata/C.krusei Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**	CE	100	1 x10^3 copies/ml
F3-100FRT SA, RG, iQ, MX, SC, A	**Candida albicans/C.glabrata/C.krusei Real-TM** Real Time Amplification kit	**R**	CE	100	1 x10^3 copies/ml
F5-100FRT SA, RG, iQ, MX, SC, A	**Candidosis Real-TM Quant** NEW Real Time Amplification kit for detection of *C.albicans*, *C.glabrata*, *C.krusei*, *C.parapsilosis*, *C. tropicans*	**R**		100	1 x10^3 copies/ml
F-1-50R	Candida albicans 500/730 IC	A	CE	55	2,5 x10^3 copies/ml
F-1-100R	Candida albicans 500/730 IC	A		110	2,5 x10^3 copies/ml
TF1-100FEP	**Candida albicans-FEP** Complete FEP Test with DNA-Sorb-B extraction kit	**F**		100	1 x10^3 copies/ml
F1-100FEP	**Candida albicans-FEP** Amplification and FEP detection kit	**F**		100	1 x10^3 copies/ml

Treponema pallidum

Treponema pallidum is a species of spirochaete bacterium with subspecies that cause a disease such as syphilis. Syphilis is a sexually transmitted disease whose route of transmission is almost always through sexual contact, although there are examples of congenital syphilis via transmission from mother to child in utero or at birth. T pallidum is transmitted via penetration of the spirochetes through mucosal membranes and abrasions on epithelial surfaces. Incubation time from exposure to development of primary lesions, which occur at the primary site of inoculation, averages 3 weeks but can range from 10-90 days. Syphilis can generally be treated with antibiotics, including penicillin. If left untreated, syphilis can damage the heart, aorta, brain, eyes, and bones. In some cases these effects can be fatal.

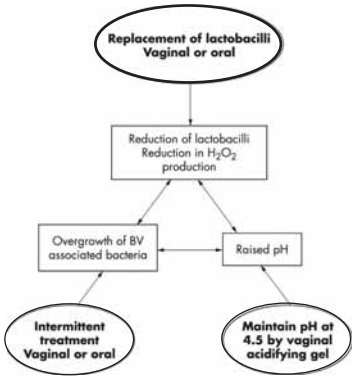


Treponema pallidum Kits

TB20-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Treponema pallidum Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**	CE	100	5 x10^2 copies/ml
B20-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Treponema pallidum Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
B-20-50R	Treponema pallidum 273/668 IC	A	CE	55	1 x10^3 copies/ml
B-20-100R	Treponema pallidum 273/668 IC	A		110	1 x10^3 copies/ml
TB20-100FEP	**Treponema pallidum-FEP** Complete FEP Test with DNA-Sorb-B extraction kit	**F**		100	5 x10^2 copies/ml
B20-100FEP	**Treponema pallidum-FEP** Amplification and FEP detection kit	**F**		100	5 x10^2 copies/ml

Bacterial vaginosis

Bacterial vaginosis (BV) is considered to be the most common cause of vaginal inflammation among both pregnant and non-pregnant women and prevalences between 4.9% and 36.0% have been reported from European and American studies. It previously was called nonspecific vaginitis or Gardnerella-associated vaginitis.
The adult human vagina is a complex ecosystem containing an abundance of microorganisms. In women of childbearing age this system is dominated by ***Lactobacillus* spp.**, a genus of gram-positive, nonmotile rod-like bacteria, a defining characteristic of which is the ability to grow in acid media and tolerate acid conditions (pH < 4.5); lactobacilli also ferment carbohydrates to produce lactic acid and produce H_2O_2 which provides a natural defense against ***Gardnerella vaginalis***. In bacterial vaginosis (BV) the balance of flora is changed with reduced numbers of lactobacilli (normal concentration 10^6 – 10^{10} CFU/ml) and an increase in numbers of other facultative and anaerobic species such as anaerobic cocci *Prevotella* spp., *Gardnerella vaginalis*, and *Mobiluncus* spp. (normal concentration < 10^3-10^5 CFU/ml). *G. vaginalis* is virtually always present at high concentrations in women who have BV but is also detected frequently in normal women and in some cases the concentration of *Gardnerella vaginalis* can reach 10^7-10^8 CFU/ml also in absence of BV, so the most important maker of BV is the ratio of logarithm concentration *Lactobacillus* spp and *G. vaginalis*.
The clinical significance of studying vaginal flora is that it helps determine the quantity of microorganisms and assess the ratio between the different groups of conditionally pathogenic microorganisms and the normal flora. The total quantity of bacteria serves as an indicator of infection level in the vaginal environment: under normal conditions it can vary between 10^6 and 10^9 (6-9 Log). The ratio between lactobacilli and the total bacterial quantity can be used as an indicator of the balance between the normal and conditionally pathogenic flora: the normal proportion of lactobacilly should be 95 to 100% of the total bacterial quantity.



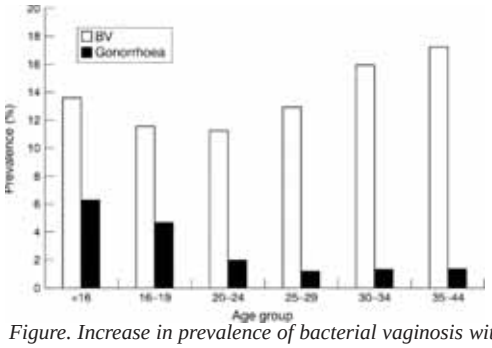


Figure. Increase in prevalence of bacterial vaginosis with growing age from 16 to 35 years old women groups

Bacterial vaginosis Kits

TR-B7-100FRT SA, RG, iQ, SC,MX, A	**G.vaginalis/Lactobac. species Real-TM Quant** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	2,5 x10^3 copies/ml
R-B7-100FRT SA, RG, iQ, SC,MX, A	**G.vaginalis/Lactobac. species Real-TM Quant** Real Time Amplification kit	**R**	CE	100	2,5 x10^3 copies/ml
TB7-100FRT SA, RG, iQ, MX, SC, A	**Gardnerella vaginalis Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	2,5 x10^3 copies/ml
B7-100FRT SA, RG, iQ, MX, SC, A	**Gardnerella vaginalis Real-TM** Real Time Amplification kit	**R**	CE	100	2,5 x10^3 copies/ml
B-7-50R	Gardnerella vaginalis 355/640 IC	A	CE	55	2,5 x10^3 copies/ml
B-7-100R	Gardnerella vaginalis 355/640 IC	A		110	2,5 x10^3 copies/ml
TB7-100FEP	**Gardnerella vaginalis-FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		100	2,5 x10^3 copies/ml
B7-100FEP	**Gardnerella vaginalis-FEP** Amplification and FEP detection kit	**F**		100	2,5 x10^3 copies/ml
TB74-100FRT SA, RG,iQ,MX,SC,A	**Bacterial Vaginosis Real-TM Quant** Multiplex RT-PCR for quantitative detection of Gardnerella vaginalis, Atopobium vaginae, Lactobacillus spp. and total bacteriae quantity in the vaginal biotope Complete Real Time Test with DNA-Sorb-A extraction kit	R		100	2,5 x10^3 copies/ml
B74-100FRT SA, RG,iQ,MX,SC,A	**Bacterial Vaginosis Real-TM Quant** Real Time Amplification kit	R		100	2,5 x10^3 copies/ml

Cytomegalovirus (CMV)

Cytomegalovirus (CMV) is a double-stranded DNA virus and is a member of the Herpesviridae family. The other family members include herpes simplex virus type 1 (HSV-1 or HHV-1) and herpes simplex virus type 2 (HSV-2 or HHV-2), varicella zoster virus (VZV), human herpesvirus (HHV)–6, HHV-7, and HHV-8. CMV shares many attributes with other herpes viruses, including genome, virion structure, and the ability to cause latent and persistent infections. Human CMV grows only in human cells and replicates best in human fibroblasts. About 58.9% of individuals aged 6 and over are infected with CMV while 90.8% of individuals aged 80 and over are positive for CMV antibodies. Symptomatic CMV disease in immunocompromised individuals can affect almost every organ of the body, resulting in fever of unknown origin, pneumonia, hepatitis, encephalitis, myelitis, colitis, uveitis, retinitis, and neuropathy. In patients coinfected with HIV, CMV infection leads to progression to AIDS and eventually death, even in those receiving highly active antiretroviral therapy (HAART).

CMV Kits

TV7-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**CMV Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		100	5 x10^2 copies/ml
V7-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**CMV Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
TV7-100/2FRT SA, RG, iQ, SC,MX, A,IL,B	**CMV Real-TM Quant** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		100	2 x10^2 copies/ml
TV7-100/2FRT C SA, RG, iQ, SC,MX, A,IL,B	**CMV Real-TM Quant** Complete Real Time Test with with Column extraction kit	**R**		100	2 x10^2 copies/ml
V7-100/2FRT SA, RG, iQ, SC,MX, A,IL,B	**CMV Real-TM Quant** Real Time PCR kit with the DNA extraction controls	**R**	CE	100	2 x10^2 copies/ml
TV48-100FRT SA, RG, iQ, SC,MX, A	**CMV/EBV/HHV6 Real-TM Quant** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		100	2 x10^2 copies/ml
V48-100FRT SA, RG, iQ, SC,MX, A	**CMV/EBV/HHV6 Real-TM Quant** Real Time Amplification kit	**R**	CE	100	2 x10^2 copies/ml
V-7-50R	CMV 500/800 IC	A		55	5 x10^2 copies/ml
V-7-100R	CMV 500/800 IC	A		110	5 x10^2 copies/ml
TV7-100FEP	**CMV-FEP** Complete FEP Test with DNA-Sorb-B extraction kit	**F**		100	5 x10^2 copies/ml
V7-100FEP	**CMV-FEP** Amplification and FEP detection kit	**F**		100	5 x10^2 copies/ml

Herpes simplex

Herpes simplex is a viral disease caused by both herpes simplex virus type 1 (HSV-1) and type 2 (HSV-2). Infection with the herpes virus is categorized into one of several distinct disorders based on the site of infection. Oral herpes, the visible symptoms of which are colloquially called *cold sores* or *fever blisters*, infects the face and mouth. Oral herpes is the most common form of infection. Genital herpes, known simply as *herpes*, is the second most common form of herpes. Other disorders such as herpetic whitlow, herpes gladiatorum, ocular herpes (keratitis), cerebral herpes infection encephalitis, Mollaret's meningitis, neonatal herpes, and possibly Bell's palsy are all caused by herpes simplex viruses. Varicella zoster virus (VZV) is an herpes viruses known to infect humans (and other vertebrates) that commonly causes chicken-pox in children.

Herpes simplex Kits

TV8-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HSV 1/2 Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	5 x10^2 copies/ml
V8-100FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**HSV 1/2 Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
TV38-100FRT SA, RG, iQ, MX, SC, A,IL,B	**HSV 1/2 Typing Real-TM** Complete Real Time Test with DNA-Sorb-A extraction kit	**R**	CE	100	5 x10^2 copies/ml

Herpes simplex Kits

V38-100FRT SA, RG, iQ, SC,MX, A,IL,B	**HSV 1/2 Typing Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
TV60-100FRT SA, RG, iQ, SC,MX, A,IL,B	**HSV/CMV Screen Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		100	5 x10^2 copies/ml
V60-100FRT SA, RG, iQ, SC,MX, A,IL,B	**HSV/CMV Screen Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
TV61-50FRT SA, RG, iQ, SC,MX, A,IL,B	**VZV Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		100	5 x10^2 copies/ml
V61-50FRT SA, RG, iQ, SC,MX, A,IL,B	**VZV Real-TM** Real Time Amplification kit	**R**	CE	100	5 x10^2 copies/ml
V-8-50R	HSV 430/720 IC	A	CE	55	1 x10^3 copies/ml
V-8-100R	HSV 430/720 IC	A		110	1 x10^3 copies/ml
TV8-100FEP	**HSV 1/2-FEP** Complete FEP Test with DNA-Sorb-B extraction kit	**F**		100	5 x10^2 copies/ml
V8-100FEP	**HSV 1/2-FEP** Amplification and FEP detection kit	**F**		100	5 x10^2 copies/ml
V38-100FEP	**HSV 1/2 Typing FEP** Amplification and FEP detection kit	**F**		100	5 x10^2 copies/ml

Epstein-Barr virus (EBV)

Epstein-Barr virus (EBV), or human herpesvirus 4, is a gammaherpesvirus that infects more than 95% of the world's population. The most common manifestation of primary infection with this organism is acute infectious mononucleosis, a self-limited clinical syndrome that most frequently affects adolescents and young adults. Classic symptoms include sore throat, fever, and lymphadenopathy. However, Epstein-Barr virus is also a human tumor virus, the first virus associated with human malignancy (nasopharyngeal carcinoma and Burkitt lymphoma).

EBV Kits

TV9-50FRT SA, RG, iQ, SC,MX, A,IL,B	**EBV Real-TM Quant** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**	CE	50	2 x10^2 copies/ml
V9-50FRT SA, RG, iQ, SC,MX, A,IL,B	**EBV Real-TM Quant** Real Time Amplification kit with the DNA extraction controls	**R**	CE	50	2 x10^2 copies/ml
V-9-50R	EBV 290	A	CE	55	5 x10^2 copies/ml
V-9-100R	EBV 290	A		110	5 x10^2 copies/ml

Human Herpes Virus 6 (HHV6)

Human herpesvirus 6 (HHV-6) was the sixth herpesvirus discovered. Isolated in 1986 during attempts to find novel viruses in patients with lymphoproliferative diseases, HHV-6 is now recognized as a T-cell lymphotrophic virus with high affinity for CD4 lymphocytes. A beta herpesvirus (like cytomegalovirus [CMV] and human herpesvirus type 7), HHV-6 has two variants, A and B. HHV-6B causes the childhood illness roseola infantum, while HHV-6A has been isolated mainly in immunocompromised hosts. HHV-6 also has been implicated in the pathogenesis of white-matter demyelination in persons with AIDS dementia complex; however, causality has not been proven.HHV-6 has been isolated from various tissues, cells, and fluid in association with the following conditions: Kikuchi lymphadenitis, Lymphoma, Lymphadenopathy, Sjögren syndrome, Sarcoidosis, Systemic lupus erythematosus, Guillain-Barré syndrome, Multiple sclerosis.

HHV-6

TV10-100FRT SA, RG, iQ, SC,MX, A,IL,B	**HHV6 Real-TM Quant** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**	CE	100	2 x10^2 copies/ml
V10-100FRT SA, RG, iQ, SC,MX, A,IL,B	**HHV6 Real-TM Quant** Real Time Amplification kit	**R**	CE	100	2 x10^2 copies/ml
V-10-50R	HHV 6 - 380	A	CE	55	5 x10^2 copies/ml
V-10-100R	HHV 6 - 380	A		110	5 x10^2 copies/ml

Rubella

The name rubella is derived from a Latin term meaning “little red.” Rubella is generally a benign communicable exanthematous disease. It is caused by ***Rubella virus***, which is a member of the Rubivirus genus of the family Togaviridae. Nearly one half of individuals infected with this virus are asymptomatic. Infection in younger children is characterized by mild constitutional symptoms, rash, and suboccipital adenopathy; conversely, in older children, adolescents, and adults, rubella may be complicated by arthralgia, arthritis, and thrombocytopenic purpura. Rare cases of rubella encephalitis have also been described in children. The major complication of rubella is its teratogenic effects when pregnant women contract the disease, especially in the early weeks of gestation. The virus can be transmitted to the fetus through the placenta and is capable of causing serious congenital defects, abortions, and stillbirths.

Rubella virus Kits

TV24-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Rubella Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**		50	1 x10^3 copies/ml
V24-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Rubella Real-TM** Real Time Amplification kit	**R**	CE	50	1 x10^3 copies/ml
V-24-50R	Rosolia 302 (RT-PCR)	A		55	

Toxoplasma gondii

Toxoplasmosis is caused by infection with ***Toxoplasma gondii***, an obligate intracellular parasite. The infection produces a wide range of clinical syndromes in humans, land and sea mammals, and various bird species. In most immunocompetent individuals, primary or chronic (latent) *T gondii* infection is asymptomatic. A small percentage of these patients eventually develop chorioretinitis, lymphadenitis, or, rarely, myocarditis and polymyositis. However, certain individuals are at high risk for severe or life-threatening toxoplasmosis. Individuals at risk for toxoplasmosis include fetuses, newborns, and immunologically impaired patients. Congenital toxoplasmosis is usually a subclinical infection. Among immunodeficient individuals, toxoplasmosis most often occurs in those with defects of T-cell–mediated immunity, such as those with hematologic malignancies, bone marrow and solid organ transplants, or AIDS.

Toxoplasma gondii Kits

TP1-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Toxoplasma gondii Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		50	5 x10^2 copies/ml
P1-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Toxoplasma gondii Real-TM** Real Time Amplification kit	**R**	CE	50	5 x10^2 copies/ml
P-1-50R	Toxoplasma gondii 325	A		55	5 x10^2 copies/ml
P-1-100R	Toxoplasma gondii 325	A		110	5 x10^2 copies/ml

Parvovirus B19

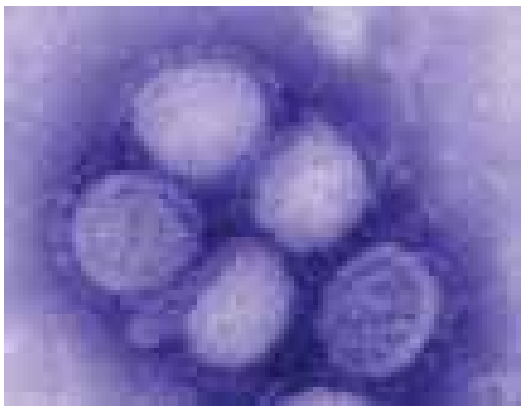
Parvovirus B19 (B19V) is a single-stranded DNA virus of the family Parvoviridae and genus Erythrovirus. Human parvovirus B19 was shown to be the etiologic agent of erythema infectiosum in hematologically normal persons. Erythema infectiosum was originally named Fifth disease because it was the fifth of 6 classic exanthematous diseases of childhood to be described. Later, cases of nonimmune hydrops fetalis were reported when infection in a woman occurred during pregnancy. Patients who are immunocompromised (eg, receiving chemotherapy or immunosuppressive drugs or have immune defects [congenital and acquired]) may develop chronic parvovirus B19 infection that results in chronic anemia. Pure red cell aplasia (PRAC) persists until the virus is cleared and should be distinguished from the transient anemia described above. Chronic parvovirus B19 infection in transplant recipients has been linked to anemia, other hematologic abnormalities, myocarditis, and pneumonitis.

Parvovirus B19 Kits

TV49-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Parvovirus B19 Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	CE	50	2 x10^2 copies/ml
V49-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Parvovirus B19 Real-TM** Real Time Amplification kit	**R**	CE	50	2 x10^2 copies/ml

Influenza Virus

Influenza virus infection, one of the most common infectious diseases, is a highly contagious airborne disease that causes an acute febrile illness and results in variable degrees of systemic symptoms, ranging from mild fatigue to respiratory failure and death. These symptoms contribute to significant loss of workdays, human suffering, mortality, and significant morbidity. Influenza results from infection with 1 of 3 basic types of influenza virus—A, B, or C—which are classified within the family Orthomyxoviridae. These single-stranded RNA viruses are structurally and biologically similar but vary antigenically. The most common prevailing influenza A subtypes that infect humans are H1N1 and H3N2.



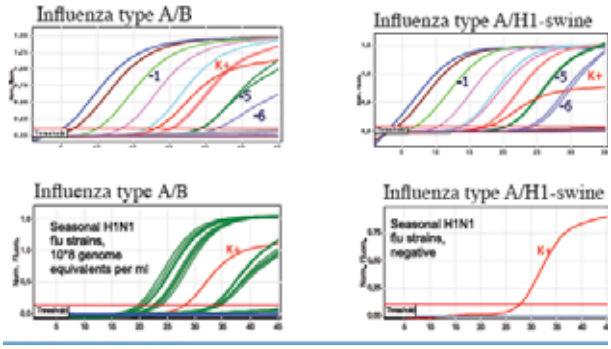
In 1997, an Avian subtype of influenza A, H5N1, was first described in Hong Kong. In 2008, more than 390 human cases had been documented and more than 246 persons had died following H5N1 outbreaks among poultry and resulting bird-to-human transmission.
On April 26, 2009, the US Department of Health and Human Services issued a nationwide public health emergency regarding Swine Influenza A (H1N1) virus infections in humans. As of early June 2009, H1N1 influenza had infected 28,774 people in 74 countries, and 144 deaths were confirmed to have been caused by the disease.

Influenza Kits

TV36-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Influenza A, B Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50	1 x10^3 copies/ml
V36-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Influenza A, B Real-TM** Real Time Amplification kit	**R**	50	1 x10^3 copies/ml
TR-V33-FRT SA, RG, iQ, SC,MX, A,IL,B	**Avian A Screening & Avian H5N1 Typing FRT** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50	1 x10^3 copies/ml
R-V33-FRT SA, RG, iQ, SC,MX, A,IL,B	**Avian A Screening & Avian H5N1 Typing FRT** Real Time Amplification kit	**R**	50	1 x10^3 copies/ml
TV31-50FRT SA, RG, iQ	**Avian A Screening & Avian H5 H7 Typing FRT** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50	1 x10^3 copies/ml
V31-50FRT SA, RG, iQ	**Avian A Screening & Avian H5 H7 Typing FRT** Real Time Amplification kit	**R**	50	1 x10^3 copies/ml
TV55-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Swine Influenza Virus H1 Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50	5 x10^2 copies/ml
V55-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Swine Influenza Virus H1 Real-TM** Real Time Amplification kit	**R**	50	5 x10^2 copies/ml
TV47-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Influenza A H5 H7 H9 Typing FRT** Complete Real Tim e Test with Ribo-Sorb extraction kit	**R**	50	1 x10^3 copies/ml
TV47-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Influenza A H5 H7 H9 Typing FRT** Real Time Amplification kit	**R**	50	1 x10^3 copies/ml
TV54-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Influenza A H1N1 & H3N2 Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50	1 x10^3 copies/ml
V54-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Influenza A H1N1 & H3N2 Real-TM** Real Time Amplification kit	**R**	50	1 x10^3 copies/ml
TV51-50FRT RG, iQ, SA	**Parainfluenza Virus Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50	1 x10^3 copies/ml
V51-50FRT RG, iQ, SA	**Parainfluenza Virus Real-TM** Real Time Amplification kit	**R**	50	1 x10^3 copies/ml

Influenza Kits

TV33-50FEP	**Avian A Screening & Avian H5N1 Typing FEP** Complete FEP Test with Ribo-Sorb extraction kit	**F**		50	1 x10^3 copies/ml
V33-50FEP	**Avian A Screening & Avian H5N1 Typing FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml
TV36-50FEP	**Influenza A, B FEP** Complete FEP Test with Ribo-Sorb extraction kit	**F**		50	1 x10^3 copies/ml
V36-50FEP	**Influenza A, B FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml
TV55-50FEP	**Swine Influenza Virus H1 FEP** Complete FEP Test with Ribo-Sorb extraction kit	**F**		50	1 x10^3 copies/ml
V55-50FEP	**Swine Influenza Virus H1 FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml
TV54-50FEP	**Influenza A H1N1 & H3N2 FEP** Complete FEP Test with Ribo-Sorb extraction kit	**F**		50	1 x10^3 copies/ml
V54-50FEP	**Influenza A H1N1 & H3N2 FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml
V-34-50R	Avian Flu Screening&Typing H5/H7 (RT-PCR)	A		55	1 x10^3 copies/ml
V-38-50R	Influenza virus A, B (RT-PCR)	A		55	1 x10^3 copies/ml



Chlamydia & Mycoplasma pneumoniae

Chlamydophila (formerly *Chlamydia*) ***pneumoniae*** causes mild pneumonia or bronchitis in adolescents and young adults. Older adults may experience more severe disease and repeated infections. Approximately 50% of young adults and 75% of elderly persons have serological evidence of previous infection. The pathogen is estimated to cause 10-20% of community-acquired pneumonia cases among adults. The estimated number of cases of C pneumoniae pneumonia is 300,000 cases per year.

Chlamydia pneumoniae Kits

TB42-4-50FRT SA, RG,iQ	**Mycoplasma pneumoniae / Chl. pneumoniae Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		50	5 x10^2 copies/ml
B42-4-50FRT SA, RG,iQ	**Mycoplasma pneumoniae / Chl. pneumoniae Real-TM** Real Time Amplification kit	**R**	CE	50	5 x10^2 copies/ml
TB42-50FEP	**Mycoplasma pneimoniae / Chlamydia pneimoniae-FEP** Complete FEP Test with DNA-Sorb-B extraction kit	**F**		50	1 x10^3 copies/ml
B42-50FEP	**Mycoplasma pneimoniae / Chlamydia pneimoniae-FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml

Pseudomonas

Pseudomonas is a gram-negative rod that belongs to the family Pseudomonadaceae. More than half of all clinical isolates produce the blue-green pigment pyocyanin. These pathogens are widespread in nature, inhabiting soil, water, plants, and animals (including humans). ***Pseudomonas aeruginosa*** has become an important cause of infection, especially in patients with compromised host defense mechanisms. Pseudomonal bacteremia occurs in association with malignancy, chemotherapy, AIDS, burn wound sepsis, and diabetes. Predisposing conditions include placement of intravenous lines, severe burns, urinary tract catheterization, surgery, trauma, and premature birth. It is the most common pathogen isolated from patients who have been hospitalized longer than 1 week. It is a frequent cause of nosocomial infections such as pneumonia, endocarditis, meningitis, urinary tract infections (UTIs) and bacteremia.

Pseudomonas aeruginosa Kits

B110-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Pseudomonas aeruginosa Real-TM Quant** Real Time Amplification kit	**R**	CE	50	5 x10^2 copies/ml

Legionella pneumophila

Legionella pneumophila is a thin, pleomorphic, flagellated Gram-negative bacterium of the genus Legionella. L. pneumophila is the primary human pathogenic bacterium in this group and is the causative agent of legionellosis or Legionnaires' disease. Legionella pneumophila (named in memory of the deceased veterans) is ubiquitous to acquatic environments worldwide and resided as an intracellular parasite of amoeba and protozoa provided a link between natural environment and human disease. Thus, environmental monitoring, especially of potable water, cooling towers, and related sources, is a major focus in efforts to control the spread of this disease.
Since the initial identification of 235 cases in 1976 , Legionnaires disease has become recognized as the most common cause of atypical pneumonia in hospitalized patients. It is the second most common cause of community-acquired bacterial pneumonia with 25% mortality rate.

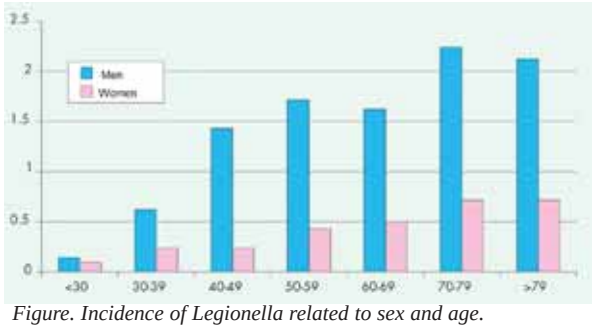


Figure. Incidence of Legionella related to sex and age.

Legionella pneumophila Kits

TB50-50FRT RG,SA, iQ	**Legionella pneumophila Real-TM** Real Time Amplification kit with DNA-Sorb-B extraction kit	**R**		50	5 x10^2 copies/ml
B50-50FRT RG,SA, iQ	**Legionella pneumophila Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml
B50-50FEP	**Legionella pneumophila-FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml

Human respiratory syncytial virus

Human respiratory syncytial virus (hRSV) is a negative-sense, single-stranded RNA virus of the family *Paramyxoviridae*, the most common cause of severe lower respiratory tract disease among infants and young children, typically infects persons by age 2 years and can cause subsequent infections throughout life. RSV infection primarily manifests as bronchiolitis or pneumonia and results in approximately 75,000 to 125,000 hospitalizations in the United States each year. Persons at increased risk for severe disease or death include premature infants, older adults, and persons of any age with compromised respiratory, cardiac, or immune systems.

hRSV Kits

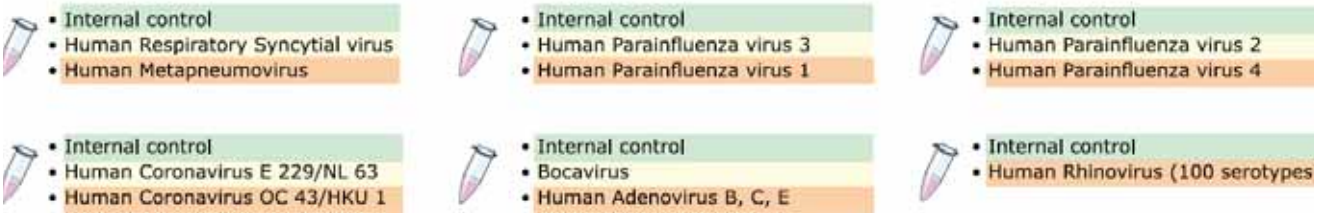
TV37-50FRT RG	**hRSV Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	CE	50	5 x10^2 copies/ml
V37-50FRT RG	**hRSV Real-TM** Real Time Amplification kit	**R**	CE	50	5 x10^2 copies/ml
V-37-50R	Respiratory syncytial virus (hRSV) 298/550 IC (RT-PCR)	A	CE	55	5 x10^2 copies/ml
TV37-50FEP	**hRSV (Respiratory Syncytial Virus) FEP** Complete FEP Test with Ribo-Sorb extraction kit	**F**		50	1 x10^3 copies/ml
V37-50FEP	**hRSV (Respiratory Syncytial Virus) FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml

Acute Respiratory Viral Infections

ARVI Screen Real-TM

Real Time PCR kit for detection of 13 respiratory pathogens in one clinical sample:

- human respiratory syncytial virus (hRSV) RNA;
- human metapneumovirus (hMpv) RNA;
- human parainfluenza virus-1-4 (hPiv) RNA;
- HKUI human coronavirus (hCov) RNA;
- human rhinovirus (hRv) RNA;
- human B, C, and E adenovirus (hAdv) DNA;
- human bocavirus (hBov) DNA



TV57-100FRT SA, RG,iQ,MX,SC,A	**ARVI Screen Real-TM** Multiplex RT-PCR detection and identification of human respiratory syncytial virus (hRSV) RNA; human metapneumovirus (hMpv) RNA; human parainfluenza virus-1-4 (hPiv) RNA; OC43, E229, NL63, and HKUI human coronavirus (hCov) RNA; human rhinovirus (hRv) RNA; human B, C, and E adenovirus (hAdv) DNA; and human bocavirus (hBov) DNA	**R**		100	
V57-100FRT SA, RG,iQ,MX,SC,A	**ARVI Screen Real-TM** Real Time Amplification kit	**R**	CE	100	

Bordetella pertussis

Pertussis, also named whooping cough, is a highly contagious bacterial disease caused by *Bordetella pertussis.* Symptoms are initially mild, and then develop into severe coughing, which produce the namesake high-pitched "whoop" sound in infected babies and children when they inhale air after coughing. The coughing stage lasts for approximately six weeks before subsiding.

Pertussis Kits

B84-100FRT SA, RG,MX, SC, IQ, A	**Bordetella pertussis/B.parapertussis/B.bronchiseptica Real-TM** Real Time Amplification kit	**R**	CE	100	1 x10^3 copies/ml

Tuberculosis

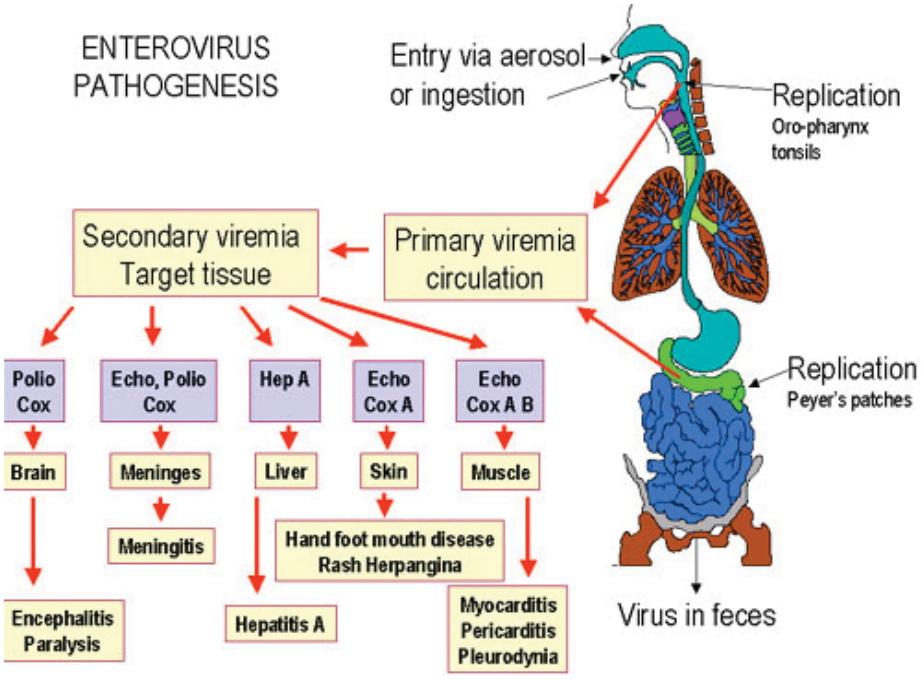
Tuberculosis (abbreviated as TB for tubercle bacillus) is a common and deadly infectious disease caused by mycobacteria, mainly Mycobacterium tuberculosis. Tuberculosis most commonly attacks the lungs (as pulmonary TB) but can also affect the central nervous system, the lymphatic system, the circulatory system, the genitourinary system, bones, joints and even the skin. Other mycobacteria such as Mycobacterium bovis, Mycobacterium africanum and Mycobacterium microti can also cause tuberculosis.
Early diagnosis of tuberculosis makes effective treatment possible and increases the probability of clinical outcome owing to quite effective antituberculosis therapy, however the tuberculosis diagnosis has certain difficulties. The application of molecular biology methods allow to overcome the difficulties in the diagnosis of Mycobacterium tuberculosis, but due to the biological peculiarities of this microorganism and immune response of human organism, tuberculosis cannot be diagnosed only by one method.
The development of test to differentiate between infection with Mycobacterium tuberculosis or Mycobacterium bovis and vaccination with M. bovis BCG could greatly assist in the diagnosis of early infection as well as enhance the use of tuberculosis vaccines on a wider scale.

TB Kits

TB15-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**MTB Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**	CE	50	2 x10^2 copies/ml
B15-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**MTB Real-TM** Real Time Amplification kit	**R**	CE	50	2 x10^2 copies/ml
TB41-50FRT SA, RG, iQ, SC,MX, A,IL	**Mycobacterium tuberculosis Diff Real-TM** Complete Test with Magno-Sorb-Tub extraction kit	**R**		50	5 x10^2 copies/ml
B41-50FRT SA, RG, iQ, SC,MX, A,IL	**Mycobacterium tuberculosis Diff Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml
B-15-50R	MTB complex 390/750 IC	A	CE	55	5 x10^2 copies/ml
B-15-100R	MTB complex 390/750 IC	A		110	5 x10^2 copies/ml
B-38-50R	Mycobacterium paratuberculosis 209/700 IC	A		55	5 x10^2 copies/ml
TB15-50FEP	**MTB-FEP** Complete FEP Test with DNA-Sorb-B extraction kit	**F**		50	5 x10^2 copies/ml
B15-50FEP	**MTB-FEP** Amplification and FEP detection kit	**F**		50	5 x10^2 copies/ml

Enteroviruses

The human **Enteroviruses** are ubiquitous viruses that are transmitted from person to person via direct contact with virus shed from the gastrointestinal or upper respiratory tract. The enteroviruses belong to the Picornaviridae family of viruses and are traditionally divided into 5 subgenera based on differences in host range and pathogenic potential. Each subgenus contains a number of unique serotypes, which are distinguished based on neutralization by specific antisera. The subgenera include polioviruses, coxsackievirus (groups A and B), and echoviruses.
Enteroviruses cause a wide range of infections. **Poliovirus**, the prototypical enterovirus, can cause a subclinical or mild illness, aseptic meningitis, or paralytic poliomyelitis, a disease that has been eradicated in the United States and other developed countries. The nonpolio viruses (group A and B coxsackieviruses, echoviruses, enteroviruses) continue to be responsible for a wide spectrum of diseases in persons of all ages, although infection and illness occur most commonly in infants.

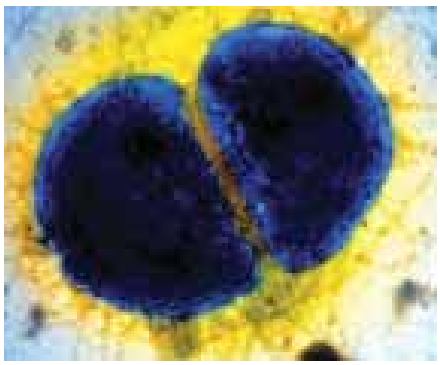


Enteroviruses Kits

TV16-50FRT RG, iQ, SA	**Enterovirus Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	CE	50	1 x10^3 copies/ml
V16-50FRT RG, iQ, SA	**Enterovirus Real-TM** Real Time Amplification kit	**R**	CE	50	1 x10^3 copies/ml
TV58-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Poliovirus Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**		50	1 x10^3 copies/ml
V58-50FRT SA, RG, iQ, SC,MX, A,IL,B	**Poliovirus Real-TM** Real Time Amplification kit	**R**		50	1 x10^3 copies/ml
V-16-50R	Enterovirus 207 (RT-PCR)	A	CE	55	1 x10^3 copies/ml
TV16-50FEP	**Enterovirus FEP** Complete FEP Test with Ribo-Sorb extraction kit	**F**		50	1 x10^3 copies/ml
V16-50FEP	**Enterovirus FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml
TV58-50FEP	**Poliovirus FEP** Complete FEP Test with Ribo-Sorb extraction kit	**F**		50	1 x10^3 copies/ml
V58-50FEP	**Poliovirus FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml

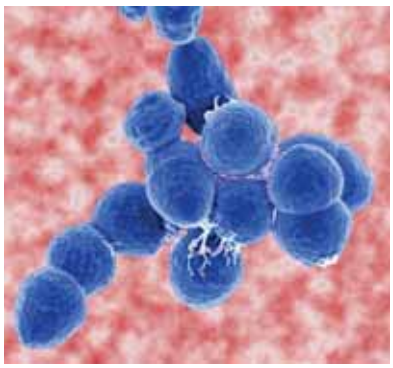
Meningitis

Meningitis is a clinical syndrome characterized by inflammation of the meninges. Clinically, this medical condition manifests with meningeal symptoms (eg, headache, nuchal rigidity, photophobia) and an increased number of white blood cells in the cerebrospinal fluid (CSF). Depending on the duration of symptoms, meningitis may be classified as acute or chronic. Acute bacterial meningitis denotes a bacterial cause of this syndrome. Depending on the specific bacterial cause, the syndrome may be called, for example, Streptococcus pneumoniae meningitis, Neisseria meningitis, or Haemophilus influenzae meningitis. Kit NHS Meningitis Real-TM is a Real-Time test for the detection and differentiation of Neisseria meningitidis, Haemophilus influenzae and Streptococcus pneumoniae in the biological materials. DNA is extracted from specimens, amplified using RT-amplification and detected using fluorescent reporter dye probes specific for N.meningitidis, H.influenzae, S.pneumoniae DNA and IC (Internal Control).



N.meningitidis

H.influenzae



Str. pneumoniae

Meningitis Kits

TB25-50FRT SA, RG,iQ,SC,MX,A	**NHS Meningitidis (N.meningitidis, H.influenzae, Str.pneumoniae) Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**	CE	50	5 x10^2 copies/ml
B25-50FRT SA, RG,iQ,SC,MX,A	**NHS Meningitidis (N.meningitidis, H.influenzae, Str.pneumoniae) Real-TM** Real Time Amplification kit	**R**	CE	50	5 x10^2 copies/ml
B-14-50FRT SA, RG,iQ,SC,MX,A	**Listeria monocytogenes Real-TM Quant** NEW Real Time Amplification kit	**R**		50	1 x10^3 copies/ml
B-25-50R	NHS Meningitidis (N.meningitidis, H.influenzae, Str.pneumoniae)	A	CE	55	1 x10^3 copies/ml
B-26-50R	Nesseria meningitidis A, B, C types	A	CE	55	1 x10^3 copies/ml
B-14-50R	Listeria monocytogenes 280	A	CE	55	1 x10^3 copies/ml
TB25-50FEP	**NHS Meningitidis (N.meningitidis, H.influenzae, Str. pneumoniae)FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		50	1 x10^3 copies/ml
B25-50FEP	**NHS Meningitidis (N.meningitidis, H.influenzae, Str. pneumoniae) FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml

Intestinal Infections

Acute Intestinal Infections (A.I.I) are one of the primary causes of hospitalization in infectious disease departments. In accordance with the data provided by the contemporary literature the following bacterial and viral agents are the most often detectable and generally spread etiological agents of AII:

1. Bacterial agents:
   - Shigella species microorganisms and enteroinvasive E coli (EIEC);
   - Salmonella species microorganisms;
   - Thermophillic group of Campylobacter species microorganisms;
   - Enteropathogenic E coli (EPEC) and enteroaggregative E coli (EAEC);
2. Viral agents
   - Group A rotaviruses;
   - Genotype 2 noroviruses;
   - Group F adenoviruses (Types 40 and 41);
   - Astroviruses.

The following causative agents are less widely or not universally spread but are no less important for epidemic outbreaks:

1. Vibrio cholerae;
2. Yersinia pseudotuberculosis;
3. Clostridium difficilae;
4. Enterotoxigenic E. coli (ETEC), Enterohemorrhagic E. coli (EHEC);
5. Genotype 1 Enteroviruses;
6. Group C Rotaviruses.

Intestinal Infections Kits

TV40-50FRT SA, RG,iQ,SC,MX,A	**Rotavirus/Norovirus/Astrovirus Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	CE	50	5 x10^2 copies/ml
V40-50FRT SA, RG,iQ,SC,MX,A	**Rotavirus/Norovirus/Astrovirus Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml
TB44-50FRT SA, RG,iQ,SC,MX,A	**Shigella/Salmonella/Campylobacter Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**	CE	50	5 x10^2 copies/ml
B44-50FRT SA, RG,iQ,SC,MX,A	**Shigella/Salmonella/Campylobacter Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml
TB45-50FRT SA, RG,iQ,SC,MX,A	**A.I.I. (Acute Intestional Infections) Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	CE	50	5 x10^2 copies/ml
B45-50FRT SA, RG,iQ,SC,MX,A	**A.I.I. (Acute Intestional Infections) Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml
V-15-50R	Rotavirus 280 (RT-PCR)	A	CE	55	1 x10^3 copies/ml
V-19-50R	Astrovirus 175 (RT-PCR)	A	CE	55	1 x10^3 copies/ml
B-23-50R	Clostridium difficile 420	A	CE	55	1 x10^3 copies/ml
B-39-50R	Yersinia pseudotuberculosis 527	A	CE	55	1 x10^3 copies/ml
TB45-50FEP	**A.I.I. (Acute Intestional Infectious) FEP** Complete FEP Test with Ribo-Sorb extraction kit	**F**		50	5 x10^2 copies/ml
B45-50FEP	**A.I.I. (Acute Intestional Infectious) FEP** Amplification and FEP detection kit	**F**		50	5 x10^2 copies/ml
TB62-50FRT SA, RG,iQ,MX,SC,A	**Escherichioses Screen & Diff Real-TM** Multiplex RT-PCR detection and identification E.coli (EPEC, ETEC, EIEC, EHEC, and EAgEC)	**R**		50	5 x10^2 copies/ml
B62-50FRT SA, RG,iQ,MX,SC,A	**Escherichioses Screen & Diff Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml
B64-50FRT SA, RG, iQ, SC,MX, A	**Yersinia enterocolitica/Y.pseudotuberrculosis Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml
B-22-50R	Yersinia Enterocolitica 270	A		55	1 x10^3 copies/ml

Intestinal Infections Kits: Food Pathogens

TB35-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Campylobacter species Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		50	5 x10^2 copies/ml
B35-50FRT SA, RG, iQ, SC,MX, A,IL,B, LC	**Campylobacter species Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml
TB58-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Cronobacter sakazakii Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		50	5 x10^2 copies/ml
B58-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Cronobacter sakazakii Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml
TB12-50FRT RG,iQ,SC,MX,A	**Shigella Spp & EIEC Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		50	5 x10^2 copies/ml
B12-50FRT SA, RG,iQ,SC,MX,A	**Shigella Spp & EIEC Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml
TB59-50FRT SA, RG,iQ,SC,MX,A	**EHEC Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		50	5 x10^2 copies/ml
B59-50FRT SA, RG,iQ,SC,MX,A	**EHEC Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml
TB11-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Salmonella species Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		50	5 x10^2 copies/ml
B11-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**Salmonella species Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml
B-11-50R	Salmonella species 225/670 IC	A	CE	55	1 x10^3 copies/ml
B-12-50R	Shigella species 400/800 IC	A	CE	55	1 x10^3 copies/ml
B-13-50R	Campylobacter jejuni 415	A	CE	55	1 x10^3 copies/ml
B-35-50R	Campylobacter species 520	A	CE	55	1 x10^3 copies/ml
TB35-50FEP	**Campylobacter spp FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		50	1 x10^3 copies/ml
B35-50FEP	**Campylobacter spp FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml
TB58-50FEP	**Cronobacter sakazakii FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		50	1 x10^3 copies/ml
B58-50FEP	**Cronobacter sakazakii FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml
TB12-50FEP	**Shigella spp FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		50	1 x10^3 copies/ml
B12-50FEP	**Shigella spp FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml
TB11-50FEP	**Salmonella spp FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		50	1 x10^3 copies/ml
B11-50FEP	**Salmonella spp FEP** Amplification and FEP detection kit	**F**		50	

Helicobacter Pylori

Helicobacter pylori is a gram-negative bacillus responsible for one of the most common infections found in humans worldwide. H pylori organisms are spiral-shaped gram-negative bacteria that are highly motile because of multiple unipolar flagella. They are microaerophilic and potent producers of the enzyme urease. H pylori inhabits the mucus adjacent to the gastric mucosa.

Helicobacter Pylori Kits

TB9-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**H.pylori Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**	CE	50	1 x10^3 copies/ml
B9-50FRT SA, RG, iQ, SC,MX, A,IL,B,LC	**H.pylori Real-TM** Real Time Amplification kit	**R**	CE	50	1 x10^3 copies/ml
B-9-50R	Helicobacter pylori 520	A	CE	55	1 x10^3 copies/ml
TB9-50FEP	**Helicobacter pylori FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		50	1 x10^3 copies/ml
B9-50FEP	**Helicobacter pylori FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml

Tropical parasites

Parasites are one of the four main agents of infection known to man, the other three being bacterial, fungal and viral. Tropical parasites are prevalent in or unique to tropical and subtropical regions. The diseases are less prevalent in temperate climates, partly because of the occurrence of a cold season, which controls the insect population by forcing hibernation. Insects such as mosquitoes and flies are one of the most common disease carrier. These insects may carry a parasite that is infectious to humans and animals.

Tropical Parasites Kits

N1-50FRT SA, RG, iQ, SC,MX, A	**Ascaridia spp. Real-TM** NEW Real Time Amplification kit	**R**	50	1 x10^3 copies/ml
N2-50FRT SA, RG, iQ, SC,MX, A	**Trichuris trichiura Real-TM** NEW Real Time Amplification kit	**R**	50	1 x10^3 copies/ml
N3-50FRT SA, RG, iQ, SC,MX, A	**Leishmania spp. Real-TM** NEW Real Time Amplification kit	**R**	50	1 x10^3 copies/ml
N4-50FRT SA, RG, iQ, SC,MX, A	**Ancylostoma diff Real-TM** NEW Real Time Amplification kit	**R**	50	1 x10^3 copies/ml
N6-50FRT SA, RG, iQ, SC,MX, A	**Brugia malayi/Wuchereria bancrofti Real-TM** NEW Real Time Amplification kit	**R**	50	1 x10^3 copies/ml
N7-50FRT SA, RG, iQ, SC,MX, A	**Schistosoma spp. Real-TM** NEW Real Time Amplification kit	**R**	50	1 x10^3 copies/ml
N8-50FRT SA, RG, iQ, SC,MX, A	**Onchocerca voluneus Real-TM** NEW Real Time Amplification kit	**R**	50	1 x10^3 copies/ml

Lyme disease

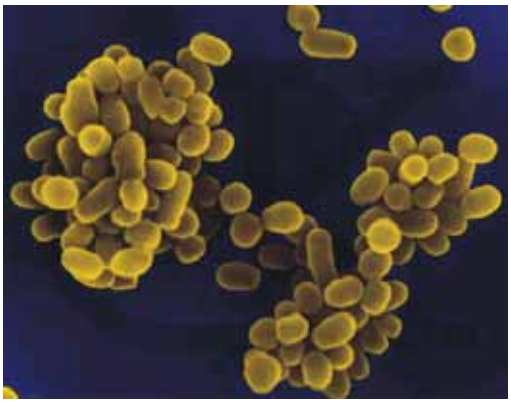
Lyme disease (LD) is a vector-borne, multisystem inflammatory disease caused by the spirochete ***Borrelia burgdorferi sensu lato***. It is transmitted to humans by infected ticks of the *Ixodes* genus. After entering the circulation, the organism invades the cutaneous, synovial, cardiac, and nervous systems. Spirochetes have also been demonstrated histologically in bone marrow, the spleen, lymph nodes, the liver, testes, and the placenta during early hematogenous dissemination.

Borrelia burgdoferi Kits

TB37-50FRT SA, RG,iQ,SC,MX,A	**Borrelia burgdorferi sensu lato Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		50	1 x10^3 copies/ml
B37-50FRT SA, RG,iQ,SC,MX,A	**Borrelia burgdorferi sensu lato Real-TM** Real Time Amplification kit	**R**		50	1 x10^3 copies/ml
B-37-50R	Borrelia burgdorferi sensu lato	A	CE	55	
TB37-50FEP	**Borrelia burgdorferi FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		50	1 x10^3 copies/ml
B37-50FEP	**Borrelia burgdorferi FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml

Brucellosis

Brucellosis is a worldwide zoonosis caused by infection with the bacterial genus *Brucella*. These organisms, which are small aerobic intracellular coccobacilli, localize in the reproductive organs of host animals, causing abortions and sterility. They are shed in large numbers in the animal's urine, milk, placental fluid, and other fluids. Exposure to infected animals and animal products causes brucellosis in humans. The global burden of human brucellosis remains enormous; it causes more than 500,000 infections per year worldwide. Among the 4 Brucella species known to cause disease in humans (*B abortus, B melitensis, B canis, B suis*), *B melitensis* is thought to be the most virulent and causes the most severe and acute cases of brucellosis.



Brucella Kits

TB10-50FRT RG	**Brucella Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		50	1 x10^3 copies/ml
B10-50FRT RG	**Brucella Real-TM** Real Time Amplification kit	**R**		50	1 x10^3 copies/ml
B-10-50R	Brucella species 460/770 IC	A	CE	55	1 x10^3 copies/ml
TB10-50FEP	**Brucella FEP** Complete FEP Test with DNA-Sorb-A extraction kit	**F**		50	1 x10^3 copies/ml
B10-50FEP	**Brucella FEP** Amplification and FEP detection kit	**F**		50	1 x10^3 copies/ml

Pestis

Yersinia pestis is a Gram-negative rod-shaped bacterium. It is a facultative anaerobe able to infect humans and other animals. Many evidence suggest that it was a contributing factor in many plagues throughout human history. The reservoir commonly associated with *Y. pestis* is several species of rodents (marmot, rats).

Pestis Kits

B79-50FRT SA, RG,iQ,SC,MX,A	**Yersinia pestis Real-TM** Real Time Amplification kit	**R**		50	5 x10^3 copies/ml

Bacillus Anthracis

Bacillus anthracis is a Gram-positive spore-forming, rod-shaped bacterium, with a width of 1-1.2μm and a length of 3-5μm. Anthrax was described in the early literature of the Greeks, Romans, and Hindus. Three forms of anthrax disease are recognized based on their form of inoculation: Cutaneous - the most common form (95%), causes a localized inflammatory black necrotic lesion (eschar), Pulmonary - highly fatal and characterized by sudden massive chest edema followed by cardiovascular shock, Gastrointestinal - rare but also fatal (causes death to 25%) type results from ingestion of spores

Bacillus Anthracis Kits

TB101-50FRT RG, iQ, SA	**Bacillus anthracis Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		50	5 x10^2 copies/ml
B101-50FRT RG, iQ, SA	**Bacillus anthracis Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml

Vibrio Cholerae

Cholera is caused by ***Vibrio cholerae***, the most feared epidemic diarrheal disease because of its severity. Dehydration and death can occur within hours of infection. Robert Koch discovered *V cholerae* in 1883 during an outbreak in Egypt. The organism is a comma-shaped, gram-negative aerobic bacillus whose size varies from 1-3 μm in length by 0.5-0.8 μm in diameter. Its antigenic structure consists of a flagellar H antigen and a somatic O antigen.

Cholera Kits

TB53-50FRT RG, iQ, SA	**Vibrio cholerae Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**		50	5 x10^2 copies/ml
B53-50FRT RG, iQ, SA	**Vibrio cholerae Real-TM** Real Time Amplification kit	**R**		50	5 x10^2 copies/ml

Leptospira

Leptospirosis is a worldwide zoonosis caused by pathogenic species of the genus ***Leptospira***. In 90% of cases, leptospirosis manifests as an acute febrile illness with a biphasic course and an excellent prognosis. Nonspecific signs and symptoms of leptospirosis (eg, fever, headache, nausea, vomiting) are often confused with viral illness. In 10% of cases, the presentation is more dramatic, and the infection has a mortality rate of 10%. Known as Weil disease or icteric leptospirosis, the classic definition of this form of leptospirosis includes fever, jaundice, renal failure, and hemorrhage. Other organ systems (ie, pulmonary system, cardiac system, CNS) are also frequently involved.

Leptospirosis Kits

TB49-50FRT SA, RG,iQ,SC,MX,A	**Leptospira 16s RNA Real-TM** Complete Real Time Test with DNA-Sorb-B extraction kit	**R**	CE	50	1 x10^3 copies/ml
B49-50FRT SA, RG,iQ,SC,MX,A	**Leptospira 16s RNA Real-TM** Real Time Amplification kit	**R**	CE	50	1 x10^3 copies/ml

Tick-Borne diseases

Ticks are arachnids, relatives of spiders that commonly live in wooded areas, brushy fields. They survive by eating blood from their hosts and they can pass infections from one host to another, including humans. Common tick-borne diseases are: **Tick-Borne Encephalitis (TBE)**, **Anaplasmosis**, **Ehrlichiosis**.

TBEV Kits

V59-100FRT SA, RG,iQ,SC,MX,A	**TBEV, B.burgdorferi, A.phagocytophilum, E.chaffeensis / E.muris Real-TM** Real Time Amplification kit	**R**		100	1 x10^3 copies/ml

West Nile Virus

The West Nile virus is one of the many members of the genus Flavivirus that are known to cause human disease. The life cycle of the West Nile virus involves the microbe's transmission from nonhuman animals to humans by way of Aedes, Culex, orAnopheles mosquitoes. The West Nile virus can infect horses, birds, dogs, and other mammals. However, wild birds are apparently the optimal hosts for harboring and replicating the virus. The West Nile virus causes serious manifestations in approximately 1% of persons who are infected, with increased morbidity and mortality in individuals older than 50 years. In hospitalized patients, neurologic sequelae of the West Nile virus included severe muscle weakness, with approximately 10% of patients developing a complete flaccid paralysis. One in 150 West Nile virus infections results in encephalitis ormeningitis, and the mortality rate from severe illness is 3-15%.

West Nile Virus Kits

TV53-50FRT SA,RG,iQ,SC,MX,A	**West Nile Virus Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**		50	5 x10^2 copies/ml
V53-50FRT SA,RG,iQ,SC,MX,A	**West Nile Virus Real-TM** Real Time Amplification kit	**R**	CE	50	5 x10^2 copies/ml

Coxiella burnetii

Q fever is a zoonosis caused by ***Coxiella burnetii***, an obligate gram-negative intracellular bacterium. Most commonly reported in southern France and Australia, Q fever occurs worldwide. *C burnetii* infects various hosts, including humans, ruminants (cattle, sheep, goats), and pets. In rare cases, C burnetii infection in reptiles, birds, and ticks has been reported. *C burnetii* is excreted in urine, milk, feces, and birth products. These products, especially the latter, contain large numbers of bacteria that become aerosolized after drying. The bacterium is highly infectious, and only a few organisms can cause disease.

Coxiella burnetii Kits

B85-50FRT SA,RG,iQ,SC,MX,A	**Coxiella burnetii Real-TM** Real Time Amplification kit	**R**		50	1 x10^3 copies/ml

Congo Crimea

Congo-Crimea hemorrhagic fever is a widespread tick-borne viral disease, a zoonosis of animals that may affect humans. The pathogenic virus, commonly present in East and West Africa, is a member of the Bunyaviridae family of RNA viruses. Clinical disease is rare in infected mammals, but commonly severe in infected humans, with a 30% mortality rate.

Congo Crimea Kits

V22-50FRT SA,RG,iQ,SC,MX,A	**Congo Crimea Real-TM** Real Time Amplification kit	**R**	CE	50	1 x10^3 copies/ml

Bacterial pyogenic infections and MRSA

Pyogenic refers to bacterial infections that make pus, that is destroyed by bacteria such as *Streptococcus pyogenes* and *Staphylococcus aureus* through the release of leukocidins. Methicillin-resistant Staphylococcus aureus (MRSA) is a strain of *Staphylococcus aureus* that has developed resistance to beta-lactam antibiotics which include the penicillins (oxacillin, methicillin, dicloxacillin, nafcillin etc.) and the cephalosporins. Resistance does make MRSA infection more difficult to treat with standard types of antibiotics.

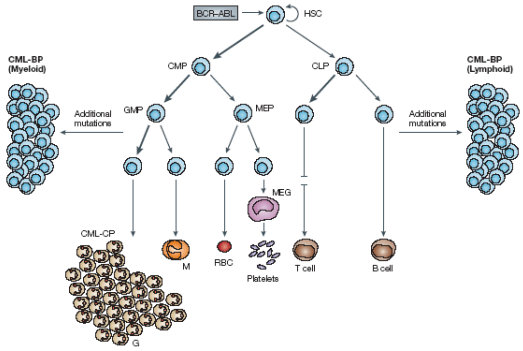
Bacterial pyogenic infections and MRSA Kits

B78-100FRT SA,RG,MX,iQ,SC,A,B	**MRSA Real-TM** Real Time Amplification kit	**R**	CE	100
B77-100FRT SA,RG,MX,iQ,SC,A,B	**Streptococcus agalactiae Real-TM** Real Time Amplification kit	**R**	CE	100
B82-100FRT SA,RG,MX,iQ,SC,A,B	**Streptococcus pyogenes Real-TM Quant** Real Time Amplification kit	**R**	CE	100
B76-50FRT SA,RG,MX,iQ,SC,A,B	**Pseudomonas aeruginosa Real-TM Quant** Real Time Amplification kit	**R**	CE	50

Oncologic diseases

Chronic myelogenous leukaemia (CML) results from the neoplastic transformation of a haematopoietic stem cell. The hallmark genetic abnormality of CML is a t(9;22)(q34;q11) translocation, which was first discovered as an abnormal, small chromosome, named the 'Philadelphia chromosome'. This translocation generates the BCR - ABL fusion gene.

The discovery that BCR-ABL is required for the pathogenesis of CML, and that the tyrosine-kinase activity of ABL is essential for BCR-ABL-mediated transformation, made the ABL kinase an attractive target for therapeutic intervention. Imatinib mesylate (Glivec, previously known as STI571 and CGP 57148) — a potent inhibitor of the tyrosine kinases ABL, ARG, platelet-derived growth factor receptor and KIT — has been shown to selectively induce apoptosis of BCR-ABL+ cells, and is remarkably successful in treating patients with CML.



In newly diagnosed patients with CML in chronic phase, imatinib induces complete cytogenetic response in more than 80% patients. Patients with more advanced phases of CML also respond to imatinib, but this occurs much less frequently and treatment is less durable. However, there are two major obstacles to imatinib-based therapies for patients with CML. One is the persistence of BCR - ABL -positive cells — this is known as 'residual disease', and is detected by a sensitive reverse-transcriptase PCR assay. Suppression of the disease therefore relies on continuous imatinib therapy. The other major problem is relapse of the disease due to the emergence of resistance to imatinib. Several mechanisms of resistance have been described, the most frequent of which are the appearance of point mutations in the BCR - ABL gene that impair the drug binding (comprehensively reviewed elsewhere). The fact that the resistance to imatinib is most commonly associated with point mutations in the kinase domain of BCR-ABL further demonstrates the importance of this activity in the pathogenesis of CML. On the other hand, the persistence of BCR - ABL -positive cells in patients on imatinib therapy indicates that inhibition of the ABL kinase activity alone might not be sufficient to eradicate the leukaemia cells.

BRCA mutations are involved in developement **breast and ovarian cancer**. BRCA1 and BRCA2 are tumor suppressor genes that are inactivated during neoplastic development in breast cancer. Germline mutations of the two genes are transmitted in the autosomal dominant way and predispose carriers to the development of ovarian and/or breast cancers. Mutations in BRCA1 are present in approximately one-half of the early-onset breast cancer families and 80% of the early-onset breast and ovarian cancer families, whereas BRCA2 mutations are believed to account for a comparable percentage of inherited breast cancer cases. Women with germline mutations in BRCA1 have a lifetime risk of 85% and up to 50% for breast and ovarian cancers, respectively. Approximately 50% to 65% of women born with a deleterious mutation in BRCA1 will develop breast cancer by age 70, and 35% to 46% will develop ovarian cancer by age 70. Approximately 40% to 57% of women with a deleterious mutation in BRCA2 will develop breast cancer by age 70, and 13% to 23% will develop ovarian cancer by age 70. Women with a breast cancer associated with a BRCA mutation have up to a 40% probability of developing a new primary breast cancer within 10 years following initial diagnosis if they did not receive tamoxifen treatment or have an oopherectomy. The woman's ten-year risk for ovarian cancer is also increased by 6-12% under these conditions.

CML Kits

TR-O1 SA, RG, IQ, MX, SC,A	**Mbcr-abl FRT Real-TM** Complete Real Time Test with Ribo-Zol-D extraction kit	**R**	CE	100
R-O1 SA, RG, IQ, MX, SC,A	**Mbcr-abl FRT Real-TM** Real Time Amplification kit	**R**	CE	100

BRCA Kits

R-27/P-48FRT SA, RG,iQ,SC,MX,A	**Oncogenetics BRCA Panel Real-TM** NEW Real Time Amplification kit	**R**		50

Single Nucleotide Polymorphisms(SNP)

Cardiovascular diseases (CVD) are lifethreatening conditions which affect up to 10% of the human population. Thrombotic complications, such as an acute myocardial infarction, ischemic stroke, pulmonary embolism, deep venous thrombosis are the major causes of morbidity and mortality in the world.
A wide spectrum of CVD with inherited genetic susceptibilities is now known and genetic susceptibility may be caused by mutations and single nucleotide polymorphisms in a variety of genes mainly involved in blood coagulation, regulation of blood pressure, and metabolism of lipids, glucose, homocysteine or iron.
Among the cardiovascular diseases markers have important role variations in the genes for blood coagulation factors V (**FV**), II (**protrombin**), XIII (**FXIII**), plasminogen activator inhibitor-1 (**PAI-1**), methylenetetrahydrofolate reductase (**MTHFR**), apolipoprotein B (**Apo B**), platelet glycoprotein IIIa (**GPIIIa**), ß-fibrinogen (**FGB**)
Moreover, an increased tendency to develop thrombosis, called also “thrombophilia”, underlies the significant proportion of cases in the most common obstetric complications (recurrent pregnancy loss, fetal growth retardation, preeclampsia, abruptio placentae).

Thrombophilia Kits

R02-50FRT SA	**FV (G1691A) SNP Screen** Real Time Amplification kit	**R**	50
R03-50FRT SA	**MTHFR C677T SNP-Screen** Real Time Amplification kit	**R**	50
R04-50FRT SA	**FII (G20210A) SNP Screen** Real Time Amplification kit	**R**	50
R1/P-48FRT SA	**Cardio Trombophilia Panel** NEW Real Time Amplification kit for detection of the following mutations: F2 20210 G>A, F5 1691 G>A (Arg506Gln), F7 10976 G>A (Arg353Gln), F13 G>T (Val34Leu), FGB -455 G>A, ITGA2 807 C>T (Phe224Phe), ITGB3 1565 T>C (Leu33Pro), SERPINE1(PAI1) -675 5G>4G	**R**	48
R2/P-48FRT SA	**Cardio Hypertension Panel** NEW Real Time Amplification kit for detection of the following mutations: ADD1 1378 G>T (Gly460Trp), AGT 704 T>C (Met235Thr), AGT 521 C>T (Thr174Met), AGTR1 1166 A>C, AGTR2 1675 G>A, CYP11B2 -344 C>T, GNB3 825 C>T, NOS3 -786 T>C, NOS3 894 G>C (Glu298Asp)	**R**	48
R8/P-48FRT SA	**Folates Methabolism Panel** NEW Real Time Amplification kit for detection of the following mutations: MTHFR 677 C>T (Ala222Val), MTHFR 1298 A>C (Glu429Ala), MTR 2756 A>G (Asp3919Gly), MTRR 66 A>G (Ile22Met)	**R**	48

Other SNP panel Kits

R14/P-48FRT SA	**Methabolism Lactose Panel** NEW Real Time Amplification kit for detection of the following mutations: MCM6 -13910 T>C, MCM6 -22018 T>C	**R**	48
R4/P-48FRT SA	**Pharmacogenetics Warfarin Panel** NEW Real Time Amplification kit for detection of the following mutations: CYP2C9 430 C>T (Arg144Cys), CYP4F2 C>T (Val433Met), VKORC1 -1639 G>A	**R**	48
R39/P-48FRT SA	**Haemochromatosis Panel** NEW Real Time Amplification kit for detection of the following mutations: HFE 187 C>G (H63D), HFE 193 A>T (S65C), HFE 845 G>A (C282Y)	**R**	48
R05-100FRT SA, RG, iQ, MX, A	**IL28B rs17 / rs60 Real-TM** NEW Real Time amplification of	**R**	100

Genetically Modified Organisms

A genetically modified organism (GMO) or genetically engineered organism (GEO) is an organism whose genetic material has been altered using genetic engineering techniques.

GMO Kits

R-G1-50FRT SA, RG, iQ, MX, A	**Plant GMO Screen Real-TM** Real Time Amplification kit	**R**	50
R-G7-50FRT SA, RG, iQ, MX, A	**Soya Screen (35S,FNW, NOS) Real-TM** Real Time Amplification kit	**R**	50
R-G8-50FRT SA, RG, iQ, MX, A	**CamV (Cauliflower mosaic virus) Real-TM** Real Time Amplification kit	**R**	50
R-G10-50FRT SA, RG, iQ, MX, A	**GMO Rice LL62 Real-TM** Real Time Amplification kit	**R**	50
R-G2-L-50FRT SA, RG, iQ, MX, A	**GMO Soya screen Real-TM** Real Time Amplification kit for detection of GMO Soya 40-3-2, A5547127, A2704-12	**R**	50
R-G2-M-50FRT SA, RG, iQ, MX, A	**GMO Soya Real-TM Quant** Real Time Amplification kit	**R**	50
R-G4-50FRT SA, RG, iQ, MX, A	**GMO Corn 35S/NOS Real-TM** Real Time Amplification kit	**R**	50
R-G4-L1-50FRT SA, RG, iQ, MX, A	**GMO Corn Screen-1 Real-TM** Real Time Amplification kit for multiplex detection of MON810, NK-603, T-25	**R**	50
R-G4-L2-50FRT SA, RG, iQ, MX, A	**GMO Corn Screen-2 Real-TM** Real Time Amplification kit for multiplex detection of GA-21, MIR-604, MON-863	**R**	50
R-G4-L3-50FRT SA, RG, iQ, MX, A	**GMO Corn Screen-3 Real-TM** Real Time Amplification kit for multiplex detection of 3272, MON-88017, BT-11	**R**	50
R-G4-M-50FRT SA, RG, iQ, MX, A	**GMO Corn Real-TM Quant** Real Time Amplification kit	**R**	50
FO-1-50R	GMO Plant Screen	A	55
G2-50R	GMO Soya 40-3-2 (amplification kit)	A	55
G3-50R	Terminator Nos corn GA-21(amplification kit)	A	55
G4-50R	GMO Maize MON 810	A	55
G6-50R	GMO potatoes & tomatoes	A	55

Veterinary

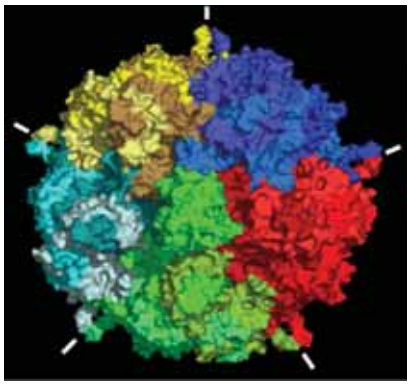
The polymerase chain reaction has become in the last years an important diagnostic tool for the veterinary virologist and bacteriologist. Conventional methods for detecting viral diseases can be laborious or ineffective. In many cases PCR can provide a rapid and accurate test for such type of analysis.

Veterinary Kits

TVET25-50FRT SA, RG,iQ,SC,MX,A	**CPV&FPV (Canine parvovirus, Feline panleukopenia virus and Mink enteritis virus) Real-TM** Complete Real Time Test with DNA-Sorb extraction kit	**R**	50
TVET56-50FRT SA, RG,iQ,SC,MX,A	**PPV (Porcine Parvovirus) Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50
TVET51-50FRT SA, RG,iQ,SC,MX,A	**CSVF (Classical swine fever virus) Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50
TVET52-50FRT SA, RG,iQ,SC,MX,A	**BVDV (Bovine Virus Diarrhoea Virus) Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50
TVET57-50FRT SA, RG,iQ,SC,MX,A	**Transmissible Gastroenteritis Porcine Virus (TGEV)** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50
TVET46-50FRT SA, RG,iQ,SC,MX,A	**Influenza A Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50

Veterinary Kits

TVET39-50FRT SA, RG,iQ	**FLV (Feline Leukaemia Virus) Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50
TVET42-50FRT SA, RG,iQ	**ASF (African Swine Fever) Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50
TVET44-50FRT SA, RG,iQ	**FIV (Feline Immunodeficiency Virus) Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50
TVET22-50FRT SA, RG,iQ,SC,MX,A	**CDV (Canine Distemper Virus) Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50
TVET41-50FRT SA, RG,iQ,SC,MX,A	**MTB Diff (Mycobacterium differenziation) Real-TM** Complete Real Time Test with DNA-Sorb extraction kit	**R**	50
TVET9-50FRT SA, RG,iQ,SC,MX,A	**BRU-COM (Brucellosis) Real-TM** Complete Real Time Test with DNA-Sorb extraction kit	**R**	50
TVET23-50FRT SA, RG,iQ,SC,MX,A	**Bacillus anthracis Real-TM** Complete Real Time Test with DNA-Sorb extraction kit	**R**	50
TVET49-50FRT SA, RG,iQ,SC,MX,A	**Leptospira spp. Real-TM** Complete Real Time Test with DNA-Sorb extraction kit	**R**	50
TVET47-FRT SA, RG, iQ,SC,MX,A	**Influenza A H5 H7 H9 Typing FRT** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50
TVET35-FRT SA, RG, iQ,SC,MX,A	**Bovine Leukaemia Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50
TVET20-50FRT SA, RG,iQ,SC,MX,A	**FVR (Feline rhinotracheitis virus) Real-TM** Complete Real Time Test with DNA-Sorb extraction kit	**R**	50
TVET34-FRT SA, RG, iQ,SC,MX,A	**FCOV (Feline Coronavirus) Real-TM** Complete Real Time Test with Ribo-Sorb extraction kit	**R**	50



Veterinary Kits

VET-1	Chlamydiaceae complex vet	A	50
VET-2	Chlamydia psittaci vet	A	50
VET-4	Mycoplasma complex vet	A	50
VET-5	Mycoplasma synoviae vet	A	50
VET-6	Mycoplasma gallisepticum vet	A	50
VET-7	Mycobacterium tubercolosis/ bovis complex vet	A	50
VET-8	Salmonella complex vet	A	50
VET-9	Brucella complex vet	A	50
VET-10	Listeria monocytogenes vet	A	50
VET-11	Rotavirus vet	A	50
VET-12	Campilobacter jejuni vet	A	50
VET-13	Toxoplasma gondii vet	A	50
VET-17	Yersinia enterocolitica vet	A	50
VET-18	Mycobacterium avium vet	A	50
VET-19	Aleutian Disease Virus	A	50
VET-20	Feline rinotracheitis virus	A	50
VET-21	Feline calicivirus vet	A	50
VET-22	Canine distemper virus vet	A	50
VET-25	Canine parvovirus & Feline panleukopenia virus vet	A	50
VET-30	Adenovirus vet	A	50
VET-31	Avian influenza A virus (H5, H7) vet	A	50
VET-34	Canine and Feline Coronarovirus vet	A	50
VET-35	Bovine Leukaemia Provirus Vet	A	50
VET-36	Mycobacterium paratuberculosis Vet	A	50

Silica Sorbtion Method

K-1-1/A	**DNA-Sorb-A** DNA Extraction Kit from clinical material (smears,scrapes, urine)	CE	50
K-1-1/B	**DNA-Sorb-B** DNA extraction kit from whole blood, plasma, liquor, sputum, bioptats, fecal extract,etc.	CE	50
K-1-6/50	**DNA-Sorb-C** DNA extraction kit from plants material, bioptats, human tissues, food samples		50
K-2-1	**Ribo-Sorb** RNA/DNA purification kit from plasma, serum, liquor, tissue, feces	CE	50
K-2-1/100	**Ribo-Sorb** RNA/DNA purification kit from plasma, serum, liquor, tissue, feces, etc		100

Magnetic Beads RNA/DNA Extraction Method

K-2-16/1000	**Magno-Virus** For rapid magnetic purification of viral RNA and DNA (e.g. HCV, HIV, HBV, HAV, HDV, Enteroviruses, CMV) from cell free body fluids such as plasma or serum and for pools screening of human plasma comprised of equal aliquots of not more than 10 individual specimens (1 ml of pool composed from 10 samples).	100

Heat-based Thermic Method

K-2-17	**Express-DNA-A** Fast heat-based thermic DNA extraction from urogenital swabs, throat swabs, conjunctiva swabs, erosive and ulcerative elements of mucous membranes and skin, urine.	50

Chemical-based Method

K-2-9	**DNA/RNA Prep** Guanidine/isopropanol RNA/DNA extraction kit from clinical materials: peripheral blood, plasma, cerebrospinal fluid, amniotic fluid, sputum, swabs, tissue, feces, etc	50

Spin Column Purification Method

K-2/C	**Ribo Virus** For rapid purification of viral RNA and DNA (HCV, HBV, HAV, HIV,CMV, HSV, VZV, EBV, parvovirus B19, H5N1)from cell-free biological fluids	50
K-1-1/E	**Genomic column DNA Express** Genomic DNA from whole blood, serum, plasma, buffy coat, platelets, body fluids	50

Step	Description
1. Lyse	 600 µl RAV1 150 µl sample 70°C 5 min
2. Adjust DNA	600 µl Ethanol
3. Bind	 Load sample  1 min 8000 x g
4. Wash	 1st wash: 500 µl RAW 2nd wash: 600 µl RAV3 3rd wash: 200 µl RAV3  1st and 2nd 1 min 8000 x g  3rd 5 min 11000 x g
5. Elute	 50 µl Rnase-free H_2O or Buffer RE (70°C) 1-2 min  1 min 11000 x g

Table. RNA/DNA Virus short protocol

PCR-Reagents

	Recombinant Thermostable DNA Polymerase, 5 U/ml.	
R1-2	with 5x PCR-buffer (15 mM MgCl2)	1000U
R1-3	w/o 5x PCR-buffer	5000U
R1-4	w/o 5x PCR-buffer	25000U
	TaqF Hot Start Polymerase	
R10-2	with 5x PCR-buffer (15 mM MgCl2)	1000U
R10-3	w/o 5x PCR-buffer	5000U
R10-4	w/o 5x PCR-buffer	25000U
K-3-4/50	**Reverta** (reverse transcription kit)	60 tests
R4-1-B	***PCR buffer 5X w/15 mM $MgCl_2$(blue)***	1,0 ml
R4-2-R	***PCR buffer 5X w/o $MgCl_2$ (red)***	1,0 ml
R4-2-U	***PCR buffer 5X w/o $MgCl_2$ (incolor)***	1,0 ml
R3-2	***Deoxynucleotide Triphosphates (DNTPs)***	4 x 1,0 ml
	set of dATP, dGTP, dCTP, dTTP conc. 100 mM each	
B-006	***Deoxynucleotide Triphosphates (DNTPs)*** *mixof dATP, dGTP, dCTP, dTTP conc. 2,5 mM*	0,5 ml
R4-3	***$MgSO_4$ 50 mM***	0,5 ml
B-005	***$MgCl_2$ 25mM***	0,5 ml
R12	***Transport medium (swabs)***	30 ml
R12-Resp	***Transport medium (respiratory swabs)***	50 ml
R12-Stab	***Transport medium (with stabilizer and mucolytic)***	50 ml

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