



IONTEK

Bringing
Color to
Molecular
Diagnostics
2023



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“At IONTEK, we believe that relentless efforts aligned with innovative biotechnology are key to changing people’s lives.”

IONTEK has been one of Turkey’s pioneering **Molecular Diagnostic companies starting over 27 years ago**. IONTEK operates under **ISO 9001: 2015 and ISO 13485: 2016** and produces high quality molecular diagnostic tests and services, making use of most advanced techniques and information systems.

The tests design and production facilities are certified under Full Quality Assurance route of the In Vitro Diagnostic Devices Directive 98/79/EC and IVDR transitions are fully incorporated into the quality system. IONTEK uses its own R&D to produce a wide range of Real-Time PCR tests in the field of molecular microbiology and molecular genetics.

Using Real-Time PCR technology, IONTEK is capable to diagnose and follow the progress of viral agents such as **Hepatitis B, C, Delta** and the **HIV**, among many others. With certified test kits, the progression and follow-up of the viral diseases are carried out quantitatively through nucleic acid contents.

IONTEK has also developed the **“Fluorion nCoV-19 Real-Time PCR Kit”** to detect the SARS-CoV-2 (COVID-19) virus by which, recently the whole world is seriously affected and caused the death of hundreds of thousand people. In order to distinguish COVID-19 virus from other respiratory infections with similar symptoms, IONTEK has also released a respiratory panel, **CoVIDenza**. Thanks to the high accuracy and specificity of our diagnostic kits, IONTEK provides important tools to fight against epidemics.

IONTEK is the first biotechnology company to carry on DNA production and DNA sequencing services in Turkey and continues to invest in the training and development of our highly qualified staff in R&D activities. With its state-of-the-art tools, **developing new products for new platforms** and improving the welfare of lives have been IONTEK’s main priority.

Thanks to its highly qualified team, IONTEK also collaborates with education initiatives and research centers as well as private hospitals. We offer our business partners a 27-year experience with competent customer support and a never-ending excitement to create real impact in healthcare.

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FLUORION

REAL-TIME PCR KITS

COVID-19

- Ready-to-use single tube Master Mix format containing all reagents
- Oligonucleotide sets produced in GMP standards
- Multiplex two target gene regions
- Internal control (Human RNaseP gene)
- Compatible with rapid extraction methods and transport solutions containing lysis buffer
- PCR protocol less than 45 minutes
- 10 copies/mL sensitivity (Depending on extraction method)
- Compatible with many Real-Time PCR devices



Fluorion nCoV-19 kit has been developed for the detection of SARS-CoV-2 virus from RNA isolates obtained from human samples.

The positive control in the kit is synthetic DNA. It contains target regions of the N1, N2, and RNaseP genes that are amplified only with the primer-probe sets included in this kit. The content of the positive control tube is not infectious.

| | SAMPLE TYPE | TARGET | SENSITIVITY |
|--|--|------------|--------------|
| | <ul style="list-style-type: none"> • Bronchoalveolar Lavage • Nasopharyngeal Swab • Oropharyngeal Swab | SARS-CoV-2 | 10 copies/mL |
| KIT SPECIFICATIONS | | | |
| Intended Use | Qualitative detection of Coronavirus 2019 (COVID-19) SARS-CoV-2, in patients with COVID-19 symptoms (e.g. fever, cough, shortness of breath), using lower respiratory tract (bronchoalveolar lavage (BAL), tracheal aspirate) and/or upper respiratory tract (nasopharyngeal and oropharyngeal fluids, nasal swab) samples. | | |
| Analytical Specificity (in vitro analysis) | DOES NOT cross-react with the below pathogens: SARS-CoV, Adenovirus, Influenza A, Influenza B, Parainfluenza 1, Parainfluenza 2, Parainfluenza 3, <i>Candida albicans</i> , RSV A, RSV B, Rhinovirus, <i>Pseudomonas aeruginosa</i> , <i>Staphylococcus aureus</i> , <i>Staphylococcus epidermidis</i> , Hepatitis B, Hepatitis C, Hepatitis Delta, Human Immunodeficiency Virus, Cytomegalovirus, Epstein-Barr Virus, JCV, BKV, Human Papilloma Virus, Parvovirus, Herpes Simplex Virus, <i>Mycobacterium tuberculosis</i> , <i>Aspergillus spp.</i> , <i>Brucella abortus</i> , <i>Brucella melitensis</i> , <i>Brucella canis</i> and <i>Brucella suis</i> , <i>E.coli</i> O157, <i>Salmonella spp.</i> , <i>Listeria monocytogenes</i> | | |
| Analytical Specificity (in silico analysis) | DOES NOT cross-react with the below pathogens: SARS-CoV, MERS-CoV, Human coronaviruses (HCoV-229E, HCoV-OC43, HCoV-NL63, HCoV-HKU1), Adenovirus, Influenza C, Influenza A, Influenza B, Parainfluenza 1, Parainfluenza 2, Parainfluenza 3, Parechovirus, <i>Candida albicans</i> , <i>Corynebacterium diphtheriae</i> , Legionella non-pneumophila, <i>Bacillus anthracis</i> , <i>Moraxella catarrhalis</i> , <i>Neisseria elongata</i> , <i>Neisseria meningitidis</i> , RSV A, RSV B, Rhinovirus, <i>Pseudomonas aeruginosa</i> , <i>Staphylococcus aureus</i> , <i>Streptococcus salivarius</i> , Leptospirosis, <i>Chlamydia psittaci</i> , <i>Coxiella burnetii</i> (Q-Fever), <i>Staphylococcus epidermidis</i> , Enterovirus, <i>Haemophilus Influenzae</i> , <i>Mycobacterium tuberculosis</i> , <i>Bordetella parapertussis</i> , <i>Mycoplasma pneumoniae</i> , <i>Chlamydia pneumoniae</i> , <i>Legionella pneumophila</i> , Hepatitis B, Hepatitis C, Hepatitis Delta, Human Immunodeficiency Virus, Cytomegalovirus, Epstein-Barr Virus, JCV, BKV, Human Papilloma Virus, Parvovirus, Herpes Simplex Virus, <i>Mycobacterium tuberculosis</i> , <i>Aspergillus spp.</i> , <i>Brucella abortus</i> , <i>Brucella melitensis</i> , <i>Brucella canis</i> and <i>Brucella suis</i> , <i>E.coli</i> O157, <i>Salmonella spp.</i> , <i>Listeria monocytogenes</i> | | |
| Specificity | 100.00% | | |
| Target Regions | N1 and N2 regions of nucleocapsid gene of SARS-CoV-2 virus Human RNaseP gene (internal control) | | |
| Reaction Duration | ~45 min. (may change depending on the Real-Time PCR instrument) | | |
| Storage Conditions | <ul style="list-style-type: none"> • Products should be stored at -20°C or below. • It is recommended not to freeze-thaw products more than three times. In cases where more freeze-thaw is required, solutions should be aliquoted and stored at -20°C or lower following the first thaw. • Detection mixes are light-sensitive. Aliquoted reagents must be protected from light. | | |

| Item | Cat. No. | Pack Size |
|--|------------|------------|
| nCoV-19 QLP 2.1 Real-Time PCR Kit CE-IVD | M1350102-3 | 100 tests |
| nCoV-19 QLP 2.1 Real-Time PCR Kit CE-IVD | M1350102-5 | 1000 tests |

HBV

Hepatitis B Virus, a member of the Hepadnaviridae, is an enveloped virus with a partially double-stranded DNA genome. The infection can be asymptomatic or symptomatic, which starts with anorexia, vague abdominal discomfort, nausea and vomiting, sometimes arthralgias and rash, often progressing to jaundice. Fever may be absent or mild; severity ranges from inapparent cases to fatal acute hepatic necrosis, or chronic infection. Long term fatality rate is 2-3% due to cancer or cirrhosis of the liver; 95% of adult infections are self limited. The mode of transmission is through percutaneous or permucosal exposure to infectious body fluids sexual contact, household contact, perinatal transmission from mother to infant, nosocomial exposure and so on.

Fluorion HBV QNP 2.0 Real-Time PCR Kit is based on the real-time PCR principle. The pathogen is detected using fluorescent dyes that are incorporated into oligonucleotide probes. The assay utilizes the 5' exonuclease activity of Taq Polymerase to cleave a dual-labeled fluorescent hydrolysis probe during the extension phase of PCR.

| | |
|--|---|
| Principle of the Test | Quantification of HBV |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | HBV DNA polymerase gene |
| Detected Genotypes | Genotypes A-F |
| Specimen Type | Serum |
| Limit of Detection | 10 IU/ml |
| Dynamic Range of Quantification | 2x10 ¹ -2x10 ⁹ IU/ml |
| Controls | Inhibition and extraction control, negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | <p>Extraction Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek)</p> <p>Amplification Fluorion Detection System (Iontek)*</p> |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--------------------------------------|------------|-----------|
| HBV QNP 2.0 Real-Time PCR Kit CE-IVD | M0010202-2 | 50 tests |
| HBV QNP 2.0 Real-Time PCR Kit CE-IVD | M0010202-3 | 100 tests |

HCV

Hepatitis C Virus, a member of the Flaviviridae, is an enveloped virus with a singlestranded positive sense RNA genome. The infection onset is insidious, with anorexia, vague abdominal discomfort, nausea and vomiting, progressing to jaundice (less frequently than hepatitis B). Chronic infection is often not symptomatic; there appears to be an association between HCV infection and hepatocellular carcinoma, of these chronically infected persons, approximately 50% will develop cirrhosis or cancer of the liver. The virus is parenterally transmitted.

Fluorion HCV QNP 2.1 Real-Time PCR Kit is based on the real-time PCR principle. The pathogen is detected using fluorescent dyes that are incorporated into oligonucleotide probes. The assay utilizes the 5' exonuclease activity of Taq Polymerase to cleave a dual-labeled fluorescent hydrolysis probe during the extension phase of PCR.

| | |
|--|---|
| Principle of the Test | Quantification of HCV |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | 5' UTR |
| Detected Genotypes | Genotypes 1-6 |
| Specimen Type | Serum |
| Limit of Detection | 26 IU/ml |
| Dynamic Range of Quantification | 2x10 ² -2x10 ¹⁰ IU/ml |
| Controls | Inhibition and extraction control, negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | <p>Extraction Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek)</p> <p>Amplification Fluorion Detection System (Iontek)*</p> |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--------------------------------------|------------|-----------|
| HCV QNP 2.1 Real-Time PCR Kit CE-IVD | M0020202-2 | 50 tests |
| HCV QNP 2.1 Real-Time PCR Kit CE-IVD | M0020202-3 | 100 tests |

HIV

AIDS, or acquired immune deficiency syndrome, is caused by the Human Immunodeficiency Virus (HIV). Individuals diagnosed with AIDS are susceptible to life-threatening diseases called opportunistic infections, which are caused by microbes that usually do not cause illness in healthy people. HIV-1 is classified as a lentivirus in a subgroup of retroviruses. The genetic material is single-stranded RNA. Two closely related retroviruses, HIV-1 and HIV-2, have been identified as causing AIDS in different geographic regions. At the end of 2016, there were approximately 36.7 million people living with HIV according to WHO. CDC has estimated that approximately 40,000 persons become infected with HIV each year. The HIV-1 RNA level is the most valuable marker for predicting disease progression in nontreated patients and is highly useful for evaluating the effectiveness of antiretroviral drug therapy.

Fluorion HIV QNP 1.1 Real-Time PCR Kit is based on the real-time PCR principle. The pathogen is detected using fluorescent dyes that are incorporated into oligonucleotide probes. The assay utilizes the 5' exonuclease activity of Taq Polymerase to cleave a dual-labeled fluorescent hydrolysis probe during the extension phase of PCR.

| | |
|--|---|
| Principle of the Test | Quantification of HIV |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | LTR |
| Detected Genotypes | HIV-1 group M genotypes (A-H) |
| Specimen Type | Serum |
| Limit of Detection | 60 IU/ml |
| Dynamic Range of Quantification | 2x10 ¹⁰ -2x10 ² IU/ml |
| Controls | Inhibition and extraction control, negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | <p>Extraction Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek)</p> <p>Amplification Fluorion Detection System (Iontek)*</p> |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--|------------|-----------|
| HIV-1 QNP 1.1 Real-Time PCR Kit CE-IVD | M0290202-2 | 50 tests |
| HIV-1 QNP 1.1 Real-Time PCR Kit CE-IVD | M0290202-3 | 100 tests |

CMV

Cytomegalo Virus, a member of the Herpesviridae, is an enveloped virus with a double-stranded linear DNA genome. Infection is common and usually asymptomatic. The most severe form is congenital with severe generalized infection involving central nervous system and liver accompanied by lethargy, convulsions, jaundice, pneumonitis and encephalitis. Reactivation, infection, or reinfection may occur in immunocompromised patients (bone marrow and other transplants). Immunodeficient patients (fetus, newborn, immunocompromised) are at higher risk. The mode of transmission is through intimate exposure by cutaneous or mucosal contact with infectious tissues, secretions or excretions (urine, saliva, breast milk, cervical secretions, semen). Infection of the fetus in the uterus and postnatal infection at delivery is possible. Blood transfusion is a common cause of post-transfusion mononucleosis (about 3% risk). The virus can also be transmitted through organ transplantation.

Fluorion CMV QNP 3.0 Real-Time PCR Kit is based on the real-time PCR principle. The pathogen is detected using fluorescent dyes that are incorporated into oligonucleotide probes. The assay utilizes the 5' exonuclease activity of Taq Polymerase to cleave a dual-labeled fluorescent hydrolysis probe during the extension phase of PCR.

| | |
|--|--|
| Principle of the Test | Quantification of CMV |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | DNA polymerase |
| Detected Genotypes | All major genotypes |
| Specimen Type | Serum |
| Limit of Detection | 48 copies/ml |
| Dynamic Range of Quantification | 2x10 ¹⁰ -2x10 ² Copies/ml |
| Controls | Inhibition and extraction control, negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | Extraction Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek) Amplification Fluorion Detection System (Iontek)* |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--------------------------------------|------------|-----------|
| CMV QNP 3.0 Real-Time PCR Kit CE-IVD | M0380202-2 | 50 tests |
| CMV QNP 3.0 Real-Time PCR Kit CE-IVD | M0380202-3 | 100 tests |

HDV

Hepatitis D is an infective disease caused by Hepatitis Delta Virus (HDV). The symptoms may include fever, jaundice, fatigue, appetite loss, abdominal pain, nausea, joint pain, tea colored urine. HDV infection may either be acquired as a coinfection with Hepatitis B Virus (HBV), or as a super infection in individuals with existing HBV infection. In both coinfection and superinfection, HDV infection results in more severe complications, such as a higher risk of liver failure (in acute infections) and a higher risk of liver cancer (in chronic infections) compared to infection with HBV alone. Having a genetic material composed of only 1.7 kb circular RNA, HDV is the smallest virus known to infect humans.

Fluorion HDV QNP 1.0 Real-Time PCR Kit is based on the real-time PCR principle. The pathogen is detected using fluorescent dyes that are incorporated into oligonucleotide probes. The assay utilizes the 5' exonuclease activity of Taq Polymerase to cleave a dual-labeled fluorescent hydrolysis probe during the extension phase of PCR.

| | |
|--|--|
| Principle of the Test | Quantification of HDV |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | Structural antigen gene |
| Detected Genotypes | HDV genotypes 1-7 |
| Specimen Type | Serum |
| Limit of Detection | 400 IU/ml |
| Dynamic Range of Quantification | 1x10 ¹⁰ -1x10 ³ IU/ml |
| Controls | Inhibition and extraction control, negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | Extraction Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek) Amplification Fluorion Detection System (Iontek)* |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--------------------------------------|------------|-----------|
| HDV QNP 1.0 Real-Time PCR Kit CE-IVD | M0060202-2 | 50 tests |
| HDV QNP 1.0 Real-Time PCR Kit CE-IVD | M0060202-3 | 100 tests |

EBV

Epstein-Barr Virus (EBV) is a member of the herpesvirus family. Infants become susceptible to EBV as soon as maternal antibody protection (present at birth) disappears. Many children become infected with EBV, and these infections usually cause no symptoms or are indistinguishable from the other mild, brief illnesses of childhood. Although the symptoms of infectious mononucleosis usually resolve in 1 or 2 months, EBV remains dormant or latent in a few cells in the throat and blood for the rest of the person's life. Periodically, the virus can reactivate. This reactivation usually occurs without symptoms of illness. EBV also establishes a lifelong dormant infection in some cells of the body's immune system. A late event in a very few carriers of this virus is the emergence of Burkitt's lymphoma and nasopharyngeal carcinoma. EBV appears to play an important role in these malignancies, but is probably not the sole cause of disease.

Fluorion EBV QNP 1.0 Real-Time PCR Kit is based on the real-time PCR principle. The pathogen is detected using fluorescent dyes that are incorporated into oligonucleotide probes. The assay utilizes the 5' exonuclease activity of Taq Polymerase to cleave a dual-labeled fluorescent hydrolysis probe during the extension phase of PCR.

| | |
|--|--|
| Principle of the Test | Detection and quantification of EBV |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | Long internal repeat region 1 |
| Detected Genotypes | All major genotypes |
| Specimen Type | Serum |
| Limit of Detection | 50 IU/ml |
| Dynamic Range of Quantification | 5x10 ² -5x10 ⁹ IU/ml |
| Controls | Inhibition and extraction control, negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | <p>Extraction QIAamp MinElute Virus Spin Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek)</p> <p>Amplification Fluorion Detection System (Iontek)*</p> |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--------------------------------------|------------|-----------|
| EBV QNP 1.0 Real-Time PCR Kit CE-IVD | M0360202-2 | 50 tests |
| EBV QNP 1.0 Real-Time PCR Kit CE-IVD | M0360202-3 | 100 tests |

PARVOVIRUS B19

Parvovirus B19 is the only member of the Parvoviridae family which has been identified as a human pathogen. This DNA virus, preferentially infects and destroys precursor erythroid cells in the bone marrow. Infection is transmitted through contact with infected respiratory secretions (saliva, sputum or nasal mucus); mother to fetus; parenterally by transfusion of blood and blood products. Parvovirus B19 infection in healthy hosts is either asymptomatic or results in the common viral exanthem, erythema infectiosum which is also known as "Fifth Disease" that affects children, or in acute arthropathy. Recovery is usually spontaneous and it rarely leads to complications such as anemia, ancephalopathy, arthritis or pneumoniae. Individuals with impaired bone marrow or immune function are uniquely susceptible to B19 infections. Infection in patients with chronic haemolytic diseases (such as sickle cell anemia) may lead to transient aplastic crisis or persistent viraemia with chronic anaemia.

Fluorion PARVOVIRUS QNP 1.0 Real-Time PCR Kit is based on the real-time PCR principle. The pathogen is detected using fluorescent dyes that are incorporated into oligonucleotide probes. The assay utilizes the 5' exonuclease activity of Taq Polymerase to cleave a dual-labeled fluorescent hydrolysis probe during the extension phase of PCR.

| | |
|--|--|
| Principle of the Test | Detection and quantification of Parvovirus |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | NS-1 gene |
| Detected Genotypes | All major genotypes |
| Specimen Type | Serum |
| Limit of Detection | 90 IU/ml |
| Dynamic Range of Quantification | 1.5x10 ² -1.5x10 ⁸ IU/ml |
| Controls | Inhibition and extraction control, negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | <p>Extraction QIAamp MinElute Virus Spin Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek)</p> <p>Amplification Fluorion Detection System (Iontek)*</p> |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|---|------------|-----------|
| Parvovirus B19 QNP 1.0 Real-Time PCR Kit CE-IVD | M0410202-2 | 50 tests |
| Parvovirus B19 QNP 1.0 Real-Time PCR Kit CE-IVD | M0410202-3 | 100 tests |

BKV

BK Virus (BKV) is a nonenveloped, double-stranded DNA virus of the polyomavirus family that primarily affects immunocompromised people. BKV becomes latent in the urinary tract after primary infection. In the context of immunosuppressive therapy, BKV can cause nephropathy in renal transplant recipients, resulting in tubulointerstitial lesions known as polyomavirus-associated nephropathy (PVAN) or, more specifically, BKV nephropathy (BKVN). Measurement of BKV loads in the urine and plasma is a powerful clinical tool for identifying patients at risk for developing BKVN and for monitoring response to therapy. Quantitative Real Time PCR is ubiquitous and reliable method for early diagnosis of BKVN.

Fluorion BKV QNP 1.0 Real-Time PCR Kit is based on the real-time PCR principle. The pathogen is detected using fluorescent dyes that are incorporated into oligonucleotide probes. The assay utilizes the 5' exonuclease activity of Taq Polymerase to cleave a dual-labeled fluorescent hydrolysis probe during the extension phase of PCR.

| | |
|--|--|
| Principle of the Test | Detection and quantification of BK Virus |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | Small T-Antigen gene |
| Detected Genotypes | All major genotypes |
| Specimen Type | Serum, plasma, urine |
| Limit of Detection | 32 copies/ml |
| Dynamic Range of Quantification | 1x10 ¹ -1x10 ⁸ copies/ml |
| Controls | Inhibition and extraction control, negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | <p>Extraction QIAamp MinElute Virus Spin Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek)</p> <p>Amplification Fluorion Detection System (Iontek)*</p> |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--------------------------------------|------------|-----------|
| BKV QNP 1.0 Real-Time PCR Kit CE-IVD | M0610202-2 | 50 tests |
| BKV QNP 1.0 Real-Time PCR Kit CE-IVD | M0610202-3 | 100 tests |

JCV

Human JC Virus (JCV) is a non-enveloped virus with a circular double-stranded-DNA genome of the polyomavirus family. JCV infection is widespread in the human population and primary infection usually occurs during childhood. After primary infection, the virus undergoes lifelong latency in the kidneys and replicates the progeny being excreted into the urine via an unknown reactivated mechanism. JCV is the causative agent of the neurological disease progressive multifocal leukoencephalopathy, which occurs in immunocompromised patients.

Fluorion JCV QNP 1.0 Real-Time PCR Kit is based on the real-time PCR principle. The pathogen is detected using fluorescent dyes that are incorporated into oligonucleotide probes. The assay utilizes the 5' exonuclease activity of Taq Polymerase to cleave a dual-labeled fluorescent hydrolysis probe during the extension phase of PCR.

| | |
|--|---|
| Principle of the Test | Detection and quantification of JC virus |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | Small T-Antigen gene |
| Detected Genotypes | All major genotypes |
| Specimen Type | Serum, plasma, urine |
| Limit of Detection | 45 copies/ml |
| Dynamic Range of Quantification | 4x10 ¹ -4x10 ⁹ copies/ml |
| Controls | Inhibition and extraction control, negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | <p>Extraction QIAamp MinElute Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek)</p> <p>Amplification Fluorion Detection System (Iontek)*</p> |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--------------------------------------|------------|-----------|
| JCV QNP 1.0 Real-Time PCR Kit CE-IVD | M0620202-2 | 50 tests |
| JCV QNP 1.0 Real-Time PCR Kit CE-IVD | M0620202-3 | 100 tests |

HSV

Human Herpesviruses are a family of eight DNA viruses which naturally occur in humans. HSV-1 and HSV-2 belong to this family. HSV infections are transmitted by the transfer of infected secretions through direct contact. Gingivostomatitis, symptomatic primary infection of the oral cavity usually caused by HSV-1, occurs most frequently in small children. Recurrent HSV-1 infections are most frequently manifested as cold sores that usually appear near the lip. HSV-1 is also the main cause of Herpes simplex keratitis, which is frequently accompanied by conjunctivitis and may lead to visual impairment. Genital herpes is most frequently caused by HSV-2. While some of the infections are completely cured, others are recurrent. Neonatal HSV infections are mostly caused by HSV-2 and usually result from contact of the fetus with infected maternal secretions during delivery. Neonatal HSV infection may result in; a) Skin, Eye and Mouth Disease, b) Encephalitis, and c) Disseminated Infection.

Fluorion HSV QLP 2.1 Real-Time PCR Kit is based on the real-time PCR principle. The pathogen is detected using fluorescent dyes that are incorporated into oligonucleotide probes. The assay utilizes the 5' exonuclease activity of Taq Polymerase to cleave a dual-labeled fluorescent hydrolysis probe during the extension phase of PCR.

| | |
|------------------------------|---|
| Principle of the Test | Detection and genotyping of HSV |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | DNA polymerase |
| Detected Genotypes | HSV-1 and HSV-2 |
| Specimen Type | Serum, plasma |
| Limit of Detection | HSV 1: 100, HSV 2: 10 copies/ml |
| Controls | Inhibition and extraction control, negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | <p>Extraction QIAamp MinElute Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek)</p> <p>Amplification Fluorion Detection System (Iontek)*</p> |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--------------------------------------|------------|-----------|
| HSV QLP 2.1 Real-Time PCR Kit CE-IVD | M0580302-2 | 50 tests |
| HSV QLP 2.1 Real-Time PCR Kit CE-IVD | M0580302-3 | 100 tests |



MTBC

Mycobacterium tuberculosis is a gram positive, non-spore forming bacteria and it is the major cause of tuberculosis in human. Tuberculosis may involve multiple organs such as the lung, liver, spleen, kidney, brain, and bone. In some patients, pulmonary macrophages are unable to contain the bacilli and are overwhelmed, leading to a clinically apparent infection. This is more common in patients who are immunocompromised, notably the population with HIV/AIDS. The primary infection usually has no symptoms. 95% of individuals will have healing of their primary tuberculous lesions with no further evidence of disease. Disseminated disease develops in the minority whose immune systems do not successfully heal the primary infection.

Fluorion MTBC QLP 2.1 Real-Time PCR Kit is based on the real-time PCR principle. The pathogen is detected using fluorescent dyes that are incorporated into oligonucleotide probes. The assay utilizes the 5' exonuclease activity of Taq Polymerase to cleave a dual-labeled fluorescent hydrolysis probe during the extension phase of PCR.

| | |
|------------------------------|--|
| Principle of the Test | Detection of MTBC |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | Insertion sequence |
| Detected Genotypes | Whole M. Tuberculosis complex family |
| Specimen Type | Serum, plasma, sputum, CSF, alveolar lavage |
| Limit of Detection | 800 copies/ml |
| Controls | Inhibition and extraction control, negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | Extraction QIAamp DNA Mini Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek) Amplification Fluorion Detection System (Iontek)* |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|---------------------------------------|------------|-----------|
| MTBC QLP 2.1 Real-Time PCR Kit CE-IVD | M0030102-2 | 50 tests |
| MTBC QLP 2.1 Real-Time PCR Kit CE-IVD | M0030102-3 | 100 tests |

VRE

Enterococci are bacteria that are normally present in the human intestines and in the female genital tract. These bacteria can sometimes cause infections. Vancomycin is an antibiotic that is used to treat some drug-resistant infections caused by enterococci. In some instances, enterococci have become resistant to this drug and thus are called Vancomycin-Resistant Enterococci (VRE). VRE has become an important clinical concern, and it is now accepted as an emerging problem in hospitals. In enterococci, two principal phenotypes of acquired vancomycin resistance have been described, VanA and VanB. Strains with VanA phenotype possess high level resistance to both vancomycin and teicoplanin, whereas strains with VanB phenotype possess only moderate to high levels of vancomycin resistance (Rapid and accurate identification of VRE is crucial in the treatment of infected patients, to allow selection of appropriate antimicrobial treatment and to implement appropriate infection control procedures).

Fluorion VRE QLP 1.0 Real-Time PCR Kit is based on the real-time PCR principle. The pathogen is detected using fluorescent dyes that are incorporated into oligonucleotide probes. The assay utilizes the 5' exonuclease activity of Taq Polymerase to cleave a dual-labeled fluorescent hydrolysis probe during the extension phase of PCR.

| | |
|------------------------------|--|
| Principle of the Test | Detection of VRE |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | vanA and vanB genes |
| Detected Genotypes | All vancomycin resistant genotypes |
| Specimen Type | Serum, plasma |
| Limit of Detection | 100 copies/ml |
| Controls | Inhibition and extraction control, negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | Extraction QIAamp DNA Mini Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek) Amplification Fluorion Detection System (Iontek)* |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--------------------------------------|------------|-----------|
| VRE QLP 1.0 Real-Time PCR Kit CE-IVD | M0630102-2 | 50 tests |
| VRE QLP 1.0 Real-Time PCR Kit CE-IVD | M0630102-3 | 100 tests |

FLUORION CoVIDenza

Fluorion Coidenza kit has been developed for the detection and separation of SARS-CoV-2, Influenza A and Influenza B viruses from RNA isolates obtained from human samples.

The positive control in the kit is synthetic DNA. It contains target regions of the N1, N2, M2, NS1 and RNaseP genes that are amplified only with the primer-probe sets included in this kit. The content of the positive control tube is not infectious.

FLUORION CoVIDenza

| | SAMPLE TYPE | TARGET | SENSITIVITY |
|--|--|--|-----------------|
| | <ul style="list-style-type: none"> Bronchoalveolar Lavage Nasopharyngeal Swab Orofarengeal Swab | SARS-CoV-2 Influenza A Influenza B | 10 copies/mL |
| KIT SPESIFICATIONS | | | |
| Intended Use | Qualitative detection and discrimination of Coronavirus 2019 (COVID-19) SARS-CoV-2, Influenza A and Influenza B viruses in patients with COVID-19 or influenza-like clinical symptoms (e.g. fever, cough, shortness of breath), using lower respiratory tract (bronchoalveolar lavage (BAL), tracheal aspirate) and/or upper respiratory tract (nasopharyngeal and oropharyngeal fluids, nasal swab) samples. | | |
| Analytical Specificity (in vitro analysis) | DOES NOT cross-react with the below pathogens: SARS-CoV, Adenovirus, Parainfluenza 1, Parainfluenza 2, Parainfluenza 3, <i>Candida albicans</i> , RSV A, RSV B, Rhinovirus, <i>Pseudomonas aeruginosa</i> , <i>Staphylococcus aureus</i> , <i>Staphylococcus epidermidis</i> , Hepatitis B, Hepatitis C, Hepatitis Delta, Human Immunodeficiency Virus, Cytomegalovirus, Epstein-Barr Virus, JCV, BKV, Human Papilloma Virus, Parvovirus, Herpes Simplex Virus, <i>Mycobacterium tuberculosis</i> , <i>Aspergillus spp.</i> , <i>Brucella abortus</i> , <i>Brucella melitensis</i> , <i>Brucella canis</i> and <i>Brucella suis</i> , <i>E.coli</i> O157, <i>Salmonella spp.</i> , <i>Listeria monocytogenes</i> | | |
| Analytical Specificity (in silico analysis) | DOES NOT cross-react with the below pathogens: SARS-CoV, MERS-CoV, Human coronaviruses (HCoV-229E, HCoV-OC43, HCoV-NL63, HCoV-HKU1), Adenovirus, Influenza C, Parainfluenza 1, Parainfluenza 2, Parainfluenza 3, Parechovirus, <i>Candida albicans</i> , <i>Corynebacterium diphtheriae</i> , <i>Legionella non-pneumophila</i> , <i>Bacillus anthracis</i> , <i>Moraxella catarrhalis</i> , <i>Neisseria elongata</i> , <i>Neisseria meningitides</i> , RSV A, RSV B, Rhinovirus, <i>Pseudomonas aeruginosa</i> , <i>Staphylococcus aureus</i> , <i>Streptococcus salivarius</i> , Leptospirosis, <i>Chlamydia psittaci</i> , <i>Coxiella burnetii</i> (Q- Fever), <i>Staphylococcus epidermidis</i> , Enterovirus, <i>Haemophilus Influenzae</i> , <i>Mycobacterium tuberculosis</i> , <i>Bordetella parapertussis</i> , <i>Mycoplasma pneumoniae</i> , <i>Chlamydia pneumoniae</i> , <i>Legionella pneumophila</i> , Hepatitis B, Hepatitis C, Hepatitis Delta, Human Immunodeficiency Virus, Cytomegalovirus, Epstein-Barr Virus, JCV, BKV, Human Papilloma Virus, Parvovirus, Herpes Simplex Virus, <i>Mycobacterium tuberculosis</i> , <i>Aspergillus spp.</i> , <i>Brucella abortus</i> , <i>Brucella melitensis</i> , <i>Brucella canis</i> and <i>Brucella suis</i> , <i>E.coli</i> O157, <i>Salmonella spp.</i> , <i>Listeria monocytogenes</i> | | |
| Specificity | 100.00% | | |
| Target Regions | N1 and N2 regions of nucleocapsid gene of SARS-CoV-2 virus, M2 gene of Influenza A virus, NS1 gene of Influenza B virus Human RNaseP gene (internal control) | | |
| Reaction Duration | ~45 min. (may change depending on the Real-Time PCR instrument) | | |
| Storage Conditions | <ul style="list-style-type: none"> Products should be stored at -20°C or below. It is recommended not to freeze-thaw products more than three times. In cases where more freeze-thaw is required, solutions should be aliquoted and stored at -20°C or lower following the first thaw. Detection mixes are light-sensitive. Aliquoted reagents must be protected from light. | | |

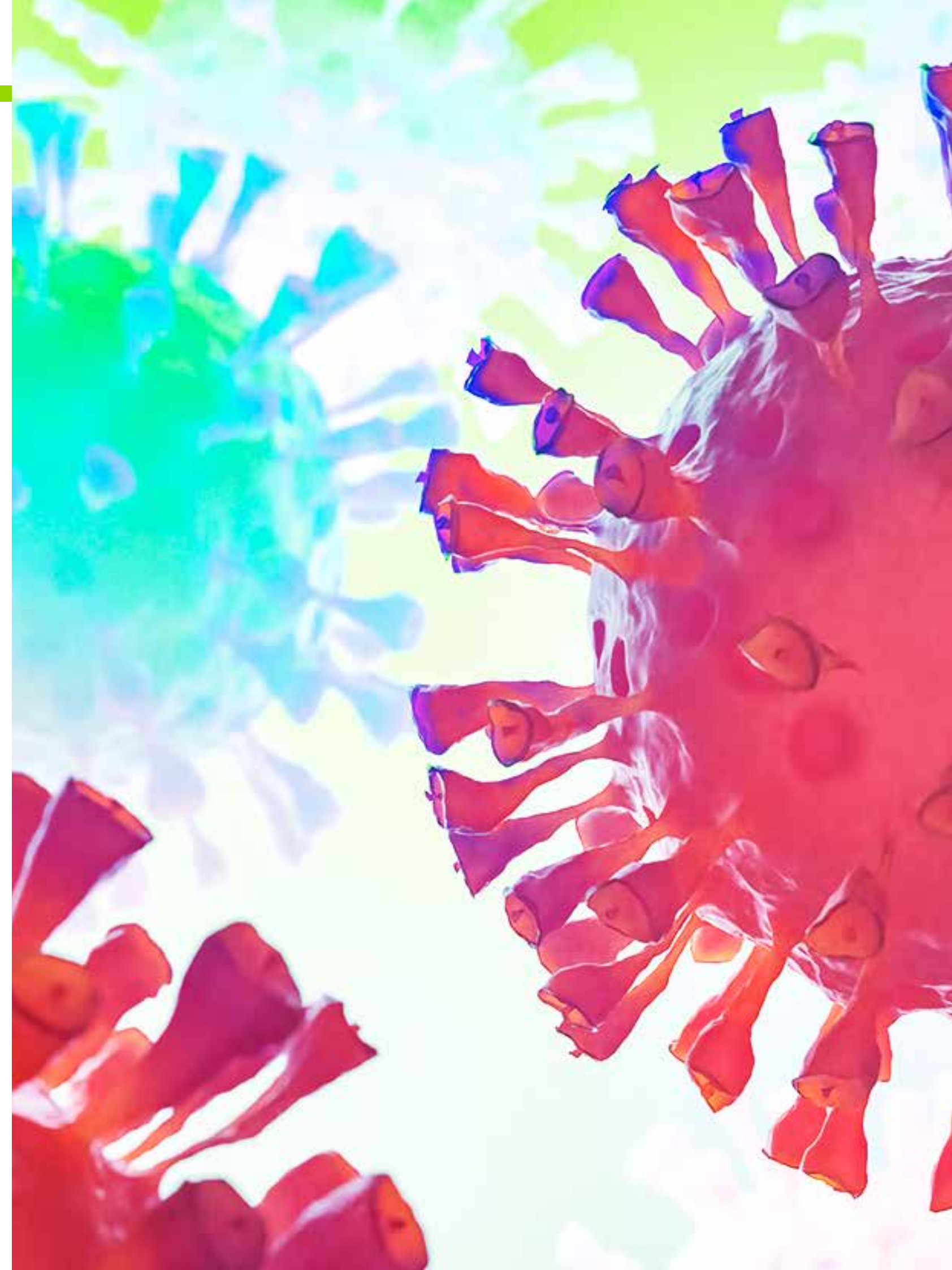
| Item | Cat. No. | Pack Size |
|--|------------|-----------|
| CoVIDenza QLP 1.0 Real-Time PCR Kit CE-IVD | M1360102-2 | 50 tests |
| CoVIDenza QLP 1.0 Real-Time PCR Kit CE-IVD | M1360102-3 | 100 tests |

FLUORION CoVIDenza+

| | SAMPLE TYPE | TARGET | SENSITIVITY |
|--|--|--|--------------|
| | <ul style="list-style-type: none"> Bronchoalveolar Lavage Nasopharyngeal Swab Orofaryngeal Swab | SARS-CoV-2 Influenza A Influenza B RSV and/or Rhinovirus* | 10 copies/mL |
| KIT SPECIFICATIONS | | | |
| Intended Use | Qualitative detection and discrimination of Coronavirus 2019 (COVID-19) SARS CoV-2, Influenza A, Influenza B, RSV and Rhinovirus viruses in patients with COVID-19, influenza or common cold like symptoms (e.g. fever, cough, shortness of breath), using lower respiratory tract (bronchoalveolar lavage (BAL), tracheal aspirate) and/or upper respiratory tract (nasopharyngeal and oropharyngeal fluids, nasal swab) samples. Reaction is run with a double tube. | | |
| Analytical Specificity (in vitro analysis) | DOES NOT cross-react with the below pathogens: SARS-CoV, Adenovirus, Parainfluenza 1, Parainfluenza 2, Parainfluenza 3, <i>Candida albicans</i> , <i>Pseudomonas aeruginosa</i> , <i>Staphylococcus aureus</i> , <i>Staphylococcus epidermidis</i> , Hepatitis B, Hepatitis C, Hepatitis Delta, Human Immunodeficiency Virus, Cytomegalovirus, Epstein-Barr Virus, JCV, BKV, Human Papilloma Virus, Parvovirus, Herpes Simplex Virus, Mycobacterium tuberculosis, <i>Aspergillus spp.</i> , <i>Brucella abortus</i> , <i>Brucella melitensis</i> , <i>Brucella canis</i> and <i>Brucella suis</i> , <i>E.coli</i> O157, <i>Salmonella spp.</i> , <i>Listeria monocytogenes</i> | | |
| Analytical Specificity (in silico analysis) | DOES NOT cross-react with the below pathogens: SARS-CoV, MERS-CoV, Human coronaviruses (HCoV-229E, HCoV-OC43, HCoV-NL63, HCoV-HKU1), Adenovirus, Influenza C, Parainfluenza 1, Parainfluenza 2, Parainfluenza 3, Parechovirus, <i>Candida albicans</i> , <i>Corynebacterium diphtheriae</i> , <i>Legionella non-pneumophila</i> , <i>Bacillus anthracis</i> , <i>Moraxella catarrhalis</i> , <i>Neisseria elongata</i> , <i>Neisseria meningitides</i> , <i>Pseudomonas aeruginosa</i> , <i>Staphylococcus aureus</i> , <i>Streptococcus salivarius</i> , <i>Leptospirosis</i> , <i>Chlamydia psittaci</i> , <i>Coxiella burnetii</i> (Q- Fever), <i>Staphylococcus epidermidis</i> , <i>Enterovirus</i> , <i>Haemophilus Influenzae</i> , <i>Mycobacterium tuberculosis</i> , <i>Bordetella parapertussis</i> , <i>Mycoplasma pneumoniae</i> , <i>Chlamydia pneumoniae</i> , <i>Legionella pneumophila</i> , Hepatitis B, Hepatitis C, Hepatitis Delta, Human Immunodeficiency Virus, Cytomegalovirus, Epstein-Barr Virus, JCV, BKV, Human Papilloma Virus, Parvovirus, Herpes Simplex Virus, <i>Mycobacterium tuberculosis</i> , <i>Aspergillus spp.</i> , <i>Brucella abortus</i> , <i>Brucella melitensis</i> , <i>Brucella canis</i> and <i>Brucella suis</i> , <i>E.coli</i> O157, <i>Salmonella spp.</i> , <i>Listeria monocytogenes</i> | | |
| Specificity | 100.00% | | |
| Target Regions | N1 and N2 regions of nucleocapsid gene of SARS-CoV-2 virus, M2 gene of Influenza A virus, NS1 gene of Influenza B virus, G Protein of RSV 5' UTR region of Rhinovirus Human RNaseP gene (internal control) | | |
| Reaction Duration | ~45 min. (may change depending on the Real-Time PCR instrument) | | |
| Storage Conditions | <ul style="list-style-type: none"> Products should be stored at -20°C or below. It is recommended not to freeze-thaw products more than three times. In cases where more freeze-thaw is required, solutions should be aliquoted and stored at -20°C or lower following the first thaw. Detection mixes are light-sensitive. Aliquoted reagents must be protected from light. | | |

* Please contact for optional requests

| Item | Cat. No. | Pack Size |
|---|------------|-----------|
| CoVIDenza Plus QLP 1.0 Real-Time PCR Kit CE-IVD | M1370102-2 | 50 tests |
| CoVIDenza Plus QLP 1.0 Real-Time PCR Kit CE-IVD | M1370102-3 | 100 tests |





FV LEIDEN

Factor V Leiden is a genetic disorder inherited in an autosomal dominant manner. The disorder results in 50% of the familial thrombophilia cases. Thrombophilia is a term used to describe a group of conditions in which there is an increased tendency, for excessive clotting. The most common mutation associated with inherited thrombosis in the Caucasian population is the Factor V Leiden mutation, which leads to resistance to activated protein C. A point mutation at position 1691 of the Factor V gene, renders the gene product resistant to degradation by APC (activated protein C), which results in excessive clotting. Heterozygotes for the Factor V Leiden mutation have an approximately 5 to 10-fold increased risk for venous thrombosis.

| | |
|----------------------------------|---|
| Principle of the Test | Detection of the Factor V Leiden G1691A mutation |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | Factor V Leiden |
| Detected Genotypes | Wild type and mutant |
| Specimen Type | Whole blood |
| Minimum DNA Concentration | 50 ng/ul DNA |
| Controls | Negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | Extraction QIAamp DNA Blood Mini Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek) Amplification Fluorion Detection System (Iontek), MIC* |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|---|------------|-----------|
| Factor V Leiden (G1691A) QLP 4.0 Real-Time PCR Kit CE-IVD | G0990402-2 | 50 tests |
| Factor V Leiden (G1691A) QLP 4.0 Real-Time PCR Kit CE-IVD | G0990402-3 | 100 tests |

FACTOR II KIT (PROTHROMBIN)

Thrombophilia affects a large number of individuals in the world. The most common mutation associated with inherited thrombosis in the Caucasian population is the Factor V Leiden mutation, which leads to resistance to activated protein C. The second most common mutation associated with hereditary thrombosis is the G20210A mutation in the prothrombin (Factor II) gene, which is associated with high plasma prothrombin levels. Heterozygous carriers of the prothrombin 20210 G-A mutation have an estimated 3 to 8-fold increased risk for venous thrombosis.

| | |
|----------------------------------|---|
| Principle of the Test | Detection of the Factor II G20210A mutation |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | Factor II |
| Detected Genotypes | Wild type and mutant |
| Specimen Type | Whole blood |
| Minimum DNA Concentration | 50 ng/ul DNA |
| Controls | Negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | Extraction QIAamp DNA Blood Mini Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek) Amplification Fluorion Detection System (Iontek), MIC* |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--|------------|-----------|
| Prothrombin (G20210A) QLP 4.0 Real-Time PCR Kit CE-IVD | G1000402-2 | 50 tests |
| Prothrombin (G20210A) QLP 4.0 Real-Time PCR Kit CE-IVD | G1000402-3 | 100 tests |

MTHFR 1298 KIT

Thrombophilia is a term used to describe a group of conditions in which there is an increased tendency, for excessive clotting. Another risk factor for venous thrombosis is increased plasma homocysteine level, which is associated with homozygosity for a nucleotide variants in the methylenetetrahydrofolate reductase (MTHFR) gene. The MTHFR 677 C-T variant (leading to an alanine to valine substitution) and the 1298 A-C variant (leading to a glutamic acid to alanine substitution) result in a thermolabile enzyme and decreased production of folate, which is a cofactor required for homocysteine remethylation.

| | |
|----------------------------------|---|
| Principle of the Test | Detection of the MTHFR A1298C mutation |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | MTHFR |
| Detected Genotypes | Wild type and mutant |
| Specimen Type | Whole blood |
| Minimum DNA Concentration | 50 ng/ul DNA |
| Controls | Negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | Extraction QIAamp DNA Blood Mini Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek) Amplification Fluorion Detection System (Iontek), MIC* |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|---|------------|-----------|
| MTHFR (A1298C) QLP 4.0 Real-Time PCR Kit CE-IVD | G1030402-2 | 50 tests |
| MTHFR (A1298C) QLP 4.0 Real-Time PCR Kit CE-IVD | G1030402-3 | 100 tests |

MTHFR 677 KIT

Another risk factor for venous thrombosis is increased plasma homocysteine level, which is associated with homozygosity for a nucleotide variant in the methylenetetrahydrofolate reductase (MTHFR) gene. The MTHFR 677 C-T variant (leading to an alanine to valine substitution) results in a thermolabile enzyme and decreased production of folate, which is a cofactor required for homocysteine remethylation.

| | |
|----------------------------------|---|
| Principle of the Test | Detection of the MTHFR C677T mutation |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | MTHFR |
| Detected Genotypes | Wild type and mutant |
| Specimen Type | Whole blood |
| Minimum DNA Concentration | 50 ng/ul DNA |
| Controls | Negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | Extraction QIAamp DNA Blood Mini Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek) Amplification Fluorion Detection System (Iontek), MIC* |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--|------------|-----------|
| MTHFR (C677T) QLP 4.0 Real-Time PCR Kit CE-IVD | G1010402-2 | 50 tests |
| MTHFR (C677T) QLP 4.0 Real-Time PCR Kit CE-IVD | G1010402-3 | 100 tests |

PAI KIT

Plasminogen activator inhibitor-1(PAI-1), or serpin E1, is a serine protease inhibitor (serpin) encoded by the human SERPINE1 gene. PAI-1 is a major inhibitor of fibrinolysis, a process that prevents blood clots from growing and becoming problematic. Increased PAI-1 activity results in depressed fibrinolytic activity resulting in elevated risk for thrombosis (formation of blood clots).

Homozygous wild-type (5G/5G) – Normal PAI-1 activity and normal risk of thrombosis Heterozygous (4G/5G) – Increased PAI-1 activity resulting in depressed fibrinolysis and increased risk of thrombosis. Homozygous mutant (4G/4G) – Significantly increased PAI-1 activity resulting in depressed fibrinolysis and increased risk of thrombosis.

| | |
|----------------------------------|---|
| Principle of the Test | Detection of the PAI-1 4G-5G mutation |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | PAI-1 |
| Detected Genotypes | Wild type and mutant |
| Specimen Type | Whole blood |
| Minimum DNA Concentration | 50 ng/ul DNA |
| Controls | Negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | Extraction QIAamp DNA Blood Mini Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek) Amplification Fluorion Detection System (Iontek), MIC* |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--|------------|-----------|
| PAI-1 (4G/5G) QLP 4.0 Real-Time PCR Kit CE-IVD | G1020402-2 | 50 tests |
| PAI-1 (4G/5G) QLP 4.0 Real-Time PCR Kit CE-IVD | G1020402-3 | 100 tests |

HLA B27 KIT

The human leukocyte antigen HLA-B27 is strongly associated with spondyloarthropathies (SpA), a group of inflammatory rheumatic diseases including ankylosing spondylitis (AS). HLA-B27 is found in 90–95% of AS patients. It is also found in a lower proportion of patients with reactive arthritis and some forms of psoriatic arthritis (PsA). Twenty-four HLA-B27 subtypes have been detected and differ only by a small number of nucleotide substitutions within exons 2 and 3 of the HLA-B27 gene. Although the exact mechanism determining disease susceptibility is still unknown, testing for HLA-B27 is a valuable tool for the diagnosis of AS and SpA.

| | |
|----------------------------------|---|
| Principle of the Test | Detection of the HLA B27 ALLELE |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | HLA B27 |
| Detected Genotypes | HLA B27 |
| Specimen Type | Whole blood |
| Minimum DNA Concentration | 50 ng/ul DNA |
| Controls | Negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | Extraction QIAamp DNA Blood Mini Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek) Amplification Fluorion Detection System (Iontek), MIC* |
| Status | For in vitro diagnostic use |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--|------------|-----------|
| HLA B27 QLP 1.0 Real-Time PCR Kit CE-IVD | G0570102-2 | 50 tests |
| HLA B27 QLP 1.0 Real-Time PCR Kit CE-IVD | G0570102-3 | 100 tests |

MEAT SPECIES IDENTIFICATION

Meat products can be composed of different sources. The composition and ratio of each meat species should be documented on the cover of the package. The variability of meat prices in different regions can cause fraudulent production using undeclared meat species and ratios. The most frequent meat species used are cow, sheep, pig, horse, donkey, turkey and chicken.

Techniques like hybridization, PCR and PCR-RFLP have been frequently used for meat species identification. However, these techniques are not suitable for analyzing mixtures. On the other hand, Real-Time PCR is especially suitable for mixtures and cooked products, since the target region used for amplification is considerably short (50-150 bp), which enables the analysis of degraded material.

| | |
|------------------------------|--|
| Principle of the Test | Meat Species Identification |
| Technology | Real-Time PCR with hydrolysis probes |
| Gene Target | CYTOCHROME B |
| Detected Species | Cow, sheep, pig, horse, donkey, turkey and chicken |
| Specimen Type | Meat, tissue |
| Limit of Detection | 0.001% of mixture |
| Controls | Negative control, positive control |
| Storage Condition | Below -20 °C |
| Necessary Equipment | <p>Extraction QIAamp DNA Mini Kit (Qiagen), Fluorion i12, i24/i12 Nucleic Acid Extraction Kit (Iontek), ExiPrep 16 Plus (Bioneer) Extraction System Exiprep Tissue Genomic DNA Kit</p> <p>Amplification Fluorion Detection System (Iontek), MIC*</p> |
| Status | RUO |

* Please contact for other instruments

| Item | Cat. No. | Pack Size |
|--|------------|-----------|
| Meat. Spec. Ident. QLP 1.0 Real-Time PCR Kit RUO | F0560102-2 | 50 tests |
| Meat. Spec. Ident. QLP 1.0 Real-Time PCR Kit RUO | F0560102-3 | 100 tests |



LABORATORY EQUIPMENT



FLUORION

AUTOMATED EXTRACTION KITS

FLUORION i-SERIES

The Fluorion i-series extraction systems are innovative compact magnetic bead based benchtop workstations for flexible fully-automated isolation of nucleic acids from up to 24 samples.

Usage of pre-filled reagent cartridges and disposable consumables enable a true walk-away automation and high quality extraction.

The systems provide error-free identification with barcode scanner, pre-installed protocols with free updating, ready to use prefilled reagents and all required labware for all sample types. Isolation of pure nucleic acids from a variety of sample types can be performed in 35-50 min. The systems are equipped with UV decontamination and high cross-contamination protection.



| Item | Cat. No. | Description | Pack Size |
|--------------|----------|--|---------------------------------|
| Fluorion i12 | FZP01001 | Bench-top autoextractor for rapid purification of nucleic acids from 1-12 biological samples | 1 instrument and barcode reader |
| Fluorion i24 | FZP01003 | Bench-top autoextractor for rapid purification of nucleic acids from 1-24 biological samples | 1 instrument and barcode reader |

FLUORION

AUTOMATED EXTRACTION KITS

| Item | Cat. No. | Description | Pack Size |
|--|----------|--|---|
| Fluorion i12 Blood DNA Extraction Kit (200) | FZP02001 | For extracting genomic DNA from mammalian whole blood, peripheral blood mononuclear cell, or buffy coat Sample volume range: up to 400 µL | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 Blood DNA Extraction Kit (1200) | FZP02002 | For extracting genomic DNA from mammalian whole blood, peripheral blood mononuclear cell, or buffy coat Sample volume range: up to 400 µL | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 Viral Nucleic Acid Extraction Kit | FZP02003 | For extracting viral nucleic acids from plasma, serum or cell-free body fluids Sample volume range: up to 400 µL | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 Tissue DNA Extraction Kit | FZP02004 | For extracting genomic DNA from a variety of animal tissues, swap and blood stain | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 Cultured Cell DNA Extraction Kit | FZP02005 | For extracting genomic DNA from up to 5x10 ⁶ cultured cells | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 Bacterial DNA Extraction Kit | FZP02006 | For extracting genomic DNA from Bacteria | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 HPV DNA Extraction Kit for Swab samples | FZP02007 | For extracting HPV DNA from swab sample | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 TB DNA Extraction Kit for Swab samples | FZP02008 | For extracting <i>Mycobacterium tuberculosis</i> DNA from sputum, pulmonary and cultured samples | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 FFPE DNA Extraction Kit for Swab samples | FZP02009 | For extracting genomic DNA from formalin-fixed, paraffin-embedded tissue (FFPE) samples | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 Forensic DNA Extraction Kit for Swab samples | FZP02010 | For extracting genomic DNA from a wide range of forensic and human identity samples, such as casework or crime-scene samples, dried blood, bone, and sexual assault samples, swabs, and filters. | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 Viral/Pathogen Nucleic Acids Extraction Kit A | FZP02011 | For extracting viral DNA/RNA and pathogen DNA from cell free samples | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 Viral/Pathogen Nucleic Acids Extraction Kit B | FZP02012 | For extracting viral DNA/RNA and pathogen DNA from swab samples | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 Viral RNA Extraction Kit | FZP02013 | For extracting viral RNA from plasma or serum. | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 Plant DNA Extraction Kit | FZP02014 | For extracting gDNA from plant | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 Total RNA Extraction Kit | FZP02015 | For extracting total RNA from a variety of sample types | 1 kit (48 extractions) <i>including all required plastic disposables</i> |
| Fluorion i12 Viral Nucleic Acid Extraction Kit 800 | FZP02016 | For extracting viral nucleic acids from plasma, serum or cell-free body fluids Sample volume range: up to 800 µL | 1 kit (48 extractions) <i>including all required plastic disposables</i> |

PRODUCTS LIST



FLUORION
1
HBV
Detect
100 X
iontek
Store at -20°C
Lot No: DM
Exp. D: 9/2010

FLUORION
4a
HBV
Detect
100 X
iontek
Store at -20°C
Lot No: DM
Exp. D: 9/2010

FLUORION
4b
HCV
Detect
100 X
iontek
Store at -20°C
Lot No: DM
Exp. D: 9/2010

FLUORION
HIV
Probe
100 X
iontek
Store at -20°C
Lot No: DM
Exp. D: 9/2010

FLUORION
HIV
Probe
100 X
iontek
Store at -20°C
Lot No: DM
Exp. D: 9/2010

FLUORION
HIV
Probe
100 X
iontek
Store at -20°C
Lot No: DM
Exp. D: 9/2010

FLUORION REAL-TIME PCR KITS

MICROBIOLOGY

VIRAL

| | | | | |
|----|---|---|--------|----------|
| 1 | Fluorion HCV QNP 2.1 | Hepatitis C Virus QUANTITATIVE | IVD-CE | M0020202 |
| 2 | Fluorion HDV QNP 1.0 | Hepatitis Delta Virus QUANTITATIVE | IVD-CE | M0060202 |
| 3 | Fluorion HIV-1 QNP 1.1 | Human Immunodeficiency Virus-1 QUANTITATIVE | IVD-CE | M0290202 |
| 4 | Fluorion HBV QNP 2.0 | Hepatitis B Virus QUANTITATIVE | IVD-CE | M0010202 |
| 5 | Fluorion CMV QNP 3.0 | Human Cytomegalovirus QUANTITATIVE | IVD-CE | M0380202 |
| 6 | Fluorion H1N1 QLP 2.0 | H1N1 QUALITATIVE | RUO | M0480102 |
| 7 | Fluorion EBV QNP 1.0 | Epstein-Barr Virus QUANTITATIVE | IVD-CE | M0360202 |
| 8 | Fluorion Parvovirus B19 QNP 1.0 | Parvovirus B19 QUANTITATIVE | IVD-CE | M0410202 |
| 9 | Fluorion HSV QLP 2.1 | Herpes Simplex Virus 1/2 QUALITATIVE | IVD-CE | M0580302 |
| 10 | Fluorion HCV Genotyping 1.0 | Hepatitis C Virus 1/2/3/4 Genotyping | RUO | M0490302 |
| 11 | Fluorion BK-JC QLP 1.0 | BK Virus- JC Virus QUALITATIVE | IVD-CE | M0540102 |
| 12 | Fluorion BKV QNP 1.0 | BK Virus QUANTITATIVE | IVD-CE | M0610202 |
| 13 | Fluorion JCV QNP 1.0 | JC Virus QUANTITATIVE | IVD-CE | M0620202 |
| 14 | Fluorion RSV QLP 1.0 | Respiratory Syncytial Virus QUALITATIVE | IVD-CE | M1400102 |
| 15 | Fluorion Influenza A/B QLP 1.0 | Influenza A and Influenza B Viruses QUALITATIVE | IVD-CE | M1410102 |
| 16 | Fluorion nCoV-19 QLP 2.1 | SARS-CoV-2 QUALITATIVE | IVD-CE | M1350102 |
| 17 | Fluorion nCoV-19 QLP 2.2 | SARS-CoV-2 QUALITATIVE | IVD-CE | M1490102 |
| 18 | Fluorion Rhinovirus QLP 1.0 | Rhinovirus QUALITATIVE | IVD-CE | M1420102 |
| 19 | Fluorion HPV 6/11 Low Risk Genotyping QLP 1.0 | Human Papilloma Virus Genotyping | IVD-CE | M1440302 |
| 20 | Fluorion Adenovirus QLS 1.0 | Adenovirus QUALITATIVE | IVD-CE | M0390101 |
| 21 | Fluorion HPV QNS 1.1 | Human Papilloma Virus Screening | IVD-CE | M0080301 |
| 22 | Fluorion CoVIDenza QLP 1.0 | SARS-CoV-2 and Influenza A and B Viruses QUALITATIVE | IVD-CE | M1360102 |
| 23 | Fluorion CoVIDenza Plus QLP 1.0 | SARS-CoV-2, Influenza A and B Viruses and Respiratory Syncytial Virus QUALITATIVE | IVD-CE | M1370102 |
| 24 | Fluorion CoVIDenza Plus QLP 2.0 | SARS-CoV-2, Influenza A and B Viruses and Rhinovirus QUALITATIVE | IVD-CE | M1380102 |
| 25 | Fluorion CoVIDenza Plus QLP 3.0 | SARS-CoV-2, Influenza A and B Viruses, Respiratory Syncytial Virus and Rhinovirus QUALITATIVE | IVD-CE | M1390102 |

BACTERIAL

| | | | | |
|---|-----------------------------|--|--------|----------|
| 1 | Fluorion MTBC QLP 2.1 | <i>Mycobacterium tuberculosis</i> QUALITATIVE | IVD-CE | M0030102 |
| 2 | Fluorion Brucella QLP 2.0 | <i>Brucella spp.</i> QUALITATIVE | RUO | M0070102 |
| 3 | Fluorion VRE QLP 1.0 | <i>Vancomycin-resistant Enterococcus spp.</i> QUALITATIVE | IVD-CE | M0630102 |
| 4 | Fluorion MRSA QLP 1.0 | <i>Methicillin-resistant Staphylococcus aureus</i> QUALITATIVE | IVD-CE | M0350102 |
| 5 | Fluorion Ureoplasma QLP 1.0 | <i>Ureoplasma spp.</i> QUALITATIVE | RUO | M0530102 |

PARASITIC

| | | | | |
|---|-----------------------------|------------------------------------|--------|----------|
| 1 | Fluorion Leishmania QLS 1.0 | <i>Leishmania spp.</i> QUALITATIVE | IVD-CE | M0250101 |
|---|-----------------------------|------------------------------------|--------|----------|

FUNGAL

| | | | | |
|---|------------------------------|-------------------------------------|--------|----------|
| 1 | Fluorion Aspergillus QLP 1.0 | <i>Aspergillus spp.</i> QUALITATIVE | IVD-CE | M0510102 |
|---|------------------------------|-------------------------------------|--------|----------|

MOLECULAR GENETICS

| | | | | |
|---|--------------------------------------|--|--------|----------|
| 1 | Fluorion FVL 4.0 | Factor V Leiden Mutation DETECTION | IVD-CE | G0990402 |
| 2 | Fluorion MTHFR C677 T QLP 4.0 | MTHFR C677T Mutation DETECTION | IVD-CE | G1010402 |
| 3 | Fluorion MTHFR A1298C QLP 4.0 | MTHFR A1298C Mutation DETECTION | IVD-CE | G1030402 |
| 4 | Fluorion Prothrombin G20210A QLP 4.0 | MTHFR (Factor II/G20210A) Mutation DETECTION | IVD-CE | G1000402 |
| 5 | Fluorion PAI-1 4G-5G QLP 4.0 | PAI-1 4G/5G Deletion Mutation DETECTION | IVD-CE | G1020402 |
| 6 | Fluorion HLA B27 QLP 1.0 | HLA-B27 Mutation DETECTION | IVD-CE | G0570102 |
| 7 | Fluorion IL28B QLP 1.0 | Interleukin 28B Mutation DETECTION | IVD-CE | G0680402 |
| 8 | Fluorion HFE H63D QLP 1.0 | Hereditary Hemochromatosis H63D Mutation DETECTION | IVD-CE | G0470402 |

*Fluorion Factor V Leiden (G1691A) QLP 4.0, Fluorion Prothrombin (G20210A) QLP 4.0, MTHFR (A1298C) QLP 4.0, MTHFR (C677T) QLP 4.0, PAI-1 (4G/5G) QLP 4.0 kits have common PCR protocol.

FOOD

| | | | | |
|---|---|---|-----|----------|
| 1 | Fluorion Meat Spec. Ident. QLP 1.0** | Meat Species IDENTIFICATION | RUO | F0560102 |
| | • PORK (<i>Sus scrofa</i>) DNA IDENTIFICATION QLP 1.0* | PORK DNA IDENTIFICATION | RUO | F1070102 |
| | • BOVINE (<i>Bos taurus</i>) DNA IDENTIFICATION QLP 1.0* | BOVINE DNA IDENTIFICATION | RUO | F1080102 |
| | • HORSE (<i>Equus caballus</i>) DNA IDENTIFICATION QLP 1.0* | HORSE DNA IDENTIFICATION | RUO | F1090102 |
| | • SHEEP (<i>Ovis aries</i>) DNA IDENTIFICATION QLP 1.0* | SHEEP DNA IDENTIFICATION | RUO | F1100102 |
| | • CHICKEN (<i>Gallus gallus</i>) DNA IDENTIFICATION QLP 1.0* | CHICKEN DNA IDENTIFICATION | RUO | F1110102 |
| | • TURKEY (<i>Meleagris gallopavo</i>) DNA IDENTIFICATION QLP 1.0* | TURKEY DNA IDENTIFICATION | RUO | F1120102 |
| | • DONKEY (<i>Equus asinus</i>) DNA IDENTIFICATION QLP 1.0* | DONKEY DNA IDENTIFICATION | RUO | F1130102 |
| 2 | Fluorion <i>Listeria monocytogenes</i> QLP 1.0 | <i>Listeria monocytogenes</i> QUALITATIVE | RUO | F0970102 |
| 3 | Fluorion <i>Salmonella</i> QLP 1.0 | <i>Salmonella spp.</i> QUALITATIVE | RUO | F0520102 |
| 4 | Fluorion GMO QLP 1.0 | GMO DETECTION | RUO | F0500102 |

*Can be ordered separately.

**Fluorion Meat Species Identification Kit contains detection mixes for each 7 species.

LABORATORY EQUIPMENT

Real-Time PCR

| | | | | |
|---|--------|------------------------------|--------------------|---------|
| 1 | FDS-48 | Fluorion Detection System-48 | 48 sample capacity | D001001 |
| 2 | FDS-96 | Fluorion Detection System-96 | 96 sample capacity | D001002 |

Extraction Systems

| | | | | |
|---|----------|-----------------------|-----------------|----------|
| 1 | Fluorion | i12 Extraction System | 1-12 Extraction | FZP01001 |
| 2 | Fluorion | i24 Extraction System | 1-24 Extraction | FZP01003 |

FLUORION

AUTOMATED EXTRACTION KITS

Extraction Kits

| | | | | |
|----|--------------|---|---|----------|
| 1 | Fluorion i12 | Blood DNA Extraction Kit (200) | For extracting genomic DNA from mammalian whole blood, peripheral blood mononuclear cell, or buffy coat Sample volume range: up to 400 µL | FZP02001 |
| 2 | Fluorion i12 | Blood DNA Extraction Kit (1200) | For extracting genomic DNA from mammalian whole blood, peripheral blood mononuclear cell, or buffy coat Sample volume range: up to 400 µL | FZP02002 |
| 3 | Fluorion i12 | Viral Nucleic Acid Extraction Kit | For extracting viral nucleic acids from plasma, serum or cell-free body fluids Sample volume range: up to 400 µL | FZP02003 |
| 4 | Fluorion i12 | Tissue DNA Extraction Kit | For extracting genomic DNA from a variety of animal tissues, swap and blood stain | FZP02004 |
| 5 | Fluorion i12 | Cultured Cell DNA Extraction Kit | For extracting genomic DNA from up to 5x10 ⁶ cultured cells | FZP02005 |
| 6 | Fluorion i12 | Bacterial DNA Extraction Kit | For extracting genomic DNA from Bacteria | FZP02006 |
| 7 | Fluorion i12 | HPV DNA Extraction Kit for Swab samples | For extracting HPV DNA from swab sample | FZP02007 |
| 8 | Fluorion i12 | TB DNA Extraction Kit for Swab samples | For extracting Mycobacterium tuberculosis DNA from sputum, pulmonary and cultured samples | FZP02008 |
| 9 | Fluorion i12 | FFPE DNA Extraction Kit for Swab samples | For extracting genomic DNA from formalin-fixed, paraffin-embedded tissue (FFPE) samples | FZP02009 |
| 10 | Fluorion i12 | Forensic DNA Extraction Kit for Swab samples | For extracting genomic DNA from a wide range of forensic and human identity samples, such as casework or crime-scene samples, dried blood, bone, and sexual assault samples, swabs and filters. | FZP02010 |
| 11 | Fluorion i12 | Viral/Pathogen Nucleic Acids Extraction Kit A | For extracting viral DNA/RNA and pathogen DNA from cell free samples | FZP02011 |
| 12 | Fluorion i12 | Viral/Pathogen Nucleic Acids Extraction Kit B | For extracting viral DNA/RNA and pathogen DNA from swab samples | FZP02012 |
| 13 | Fluorion i12 | Viral RNA Extraction Kit | For extracting viral RNA from plasma or serum | FZP02013 |
| 14 | Fluorion i12 | Plant DNA Extraction Kit | For extracting gDNA from plant | FZP02014 |
| 15 | Fluorion i12 | Total RNA Extraction Kit | For extracting total RNA from a variety of sample types | FZP02015 |
| 16 | Fluorion i12 | Viral Nucleic Acid Extraction Kit 800 | For extracting viral nucleic acids from plasma, serum or cell-free body fluids Sample volume range: up to 800 µL | FZP02016 |





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