NORGEN BIOTEK CORP.

HUMAN PATHOGEN DETECTION

Mycobacterium tuberculosis
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ISO 9001:2008

ISO 13485:2003

ISO 15189:2012

CE

HUMAN PATHOGEN DETECTION

Principle of the Test

Norgen's PCR Detection Kits constituent a ready-to-use system for the isolation and detection of human pathogens using end-point, one-step RT-PCR or Real-Time PCR. The kits first allows for the isolation of RNA or DNA from samples using spin-column chromatography based on Norgen's proprietary resin. The RNA or DNA is isolated free from inhibitors, and can then be used as the template for pathogen detection using the provided Detection Mastermix. The Detection Mastermix contains reagents and enzymes for the specific amplification of a region of the viral genome.

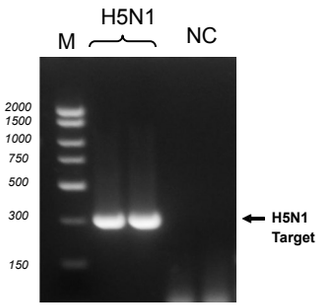
In addition, Norgen's PCR Detection Kits contain a second Mastermix, the RT-PCR or PCR Control Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate RT-PCR reaction with the use of the provided PCR control (PCRC) or Isolation Control (IsoC), respectively. The kits are designed to allow for the testing of 24 samples.

Key Features

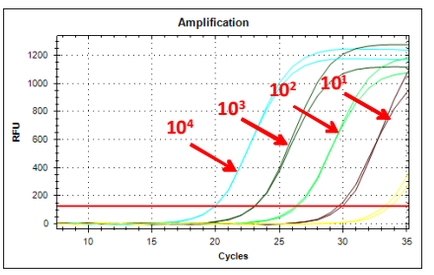
- Rapid isolation of high quality DNA for RNA from stool, urine, plasma/serum, blood, milk, nasopharyngeal swabs, nasal swabs, throat swabs or nasal aspirates of humans
- High sensitivity and specificity
- Primer set and controls also available separately
- Ideal for use in:
    1. Surveillance of Drug Resistant Pathogens
    2. Epidemiologial Studies
    3. Field Surveillance of Pathogens
    4. Surveys

All kits are available in two formats: End-Point PCR or Real-Time PCR

End-Point PCR



Real-Time PCR



Ordering Information

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CANADA

Table of Contents

Avian Influenza A Virus (H5N1) RT-PCR Detection Kit

Cat. # 35400

Rapid extraction and qualitative detection of the H5 Hemagglutinin viral RNA transcript of Avian Influenza A virus (H5N1)

Norgen's Avian Influenza A Virus (H5N1) RT-PCR Detection Kit is used for the purification and detection of the Avian Influenza A virus (H5N1) of avian origin that is an emerging influenza virus with potential pandemic threat. First the kit contains components for the purification of avian Influenza A virus (H5N1) RNA using Norgen's proprietary spin column technology. Second, the kit contains *H5N1* RT -PCR Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for the separate amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The RT-PCR reaction involves first the reverse transcription of the viral RNA into cDNA followed by PCR amplification of the H5-specific fragment using a thermo-stable polymerase. The H5N1 Master Mix contains reagents and enzymes for the specific amplification of a 321 bp region of the viral genome. In addition, Norgen's Avian Influenza A Virus (H5N1) RT-PCR Detection Kit contains a second Master Mix, The Control 2X RT-PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control (PCRC) or Isolation Control (IsoC). The H5N1 RT-PCR Primer Set and Controls are also available separately for end-point RT-PCR detection.

Features and Benefits

- Rapid isolation of high quality RNA from nasopharyngeal swabs, nasal swabs, throat swabs and nasal aspirates of humans
- Kit can also be used with nasopharyngeal swabs and cloacal swabs from birds and poultry
- Contains two ready-to-use 2X RT-PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

H5N1 RT-PCR Assay Specificity

- The linear range (analytical measurement) of was determined by analyzing a dilution series of a H5N1 quantification standard ranging from 1 x 10^7 copies/µl to 1 x 10^{-1} copies/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's Avian Influenza A Virus (H5N1) RT-PCR Detection Kit on 1X TAE 2% Agarose gel.
- The linear range of Norgen's Avian Influenza A Virus (H5N1) RT-PCR Detection Kit has been determined to cover concentrations from 5 x 10^4 copies/mL to at least 1 x 10^9 copies/mL

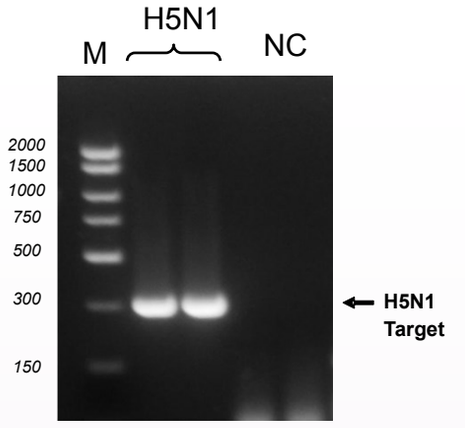

Figure 1. Detection of H5N1 using the Avian Influenza A Virus (H5N1) RT-PCR Detection Kit. A representative 1X TAE 1.7% agarose gel showing the amplification of H5N1 (H5N1 Target) using the H5N1 2x RT-PCR Master Mix. The size of the H5N1 target amplicon corresponds to 321 bp as represented by the provided DNA Marker (M). NC = Negative Control.

Ordering information

Description	Cat #	Size
Avian Influenza A Virus (H5N1) PCR Detection Kit	35400	24 rxns
Avian Influenza A PCR Kit Dx	Dx35420	48 rxns
Avian Influenza A (H5N1) Primer Sets and Controls	35410	100 rxns
Avian Influenza A Real-Time PCR	TM35400	48 rxns
Avian Influenza A Real-Time PCR	SG35400	48 rxns

Influenza A Virus (H1N1) RT-PCR Detection Kit

Cat. # 27900

Rapid extraction and qualitative detection of the H1 Hemagglutinin viral RNA transcript of the novel Influenza A virus (H1N1)

Norgen's Influenza A Virus (H1N1) RT-PCR Detection Kit is a ready-to-use system for the purification and detection of the novel Influenza A virus (H1N1) of swine origin that caused a worldwide pandemic (Phase 6, declared by WHO) in 2009. First the kit contains components for the purification of novel Influenza A virus (H1N1) RNA using Norgen's proprietary spin column technology. Second, the kit contains *H1N1* RT-PCR Master Mix and controls to allow for PCR Amplification. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The RT-PCR reaction involves first the reverse transcription of the viral RNA into cDNA followed by PCR amplification of the H1-specific fragment using a thermo-stable polymerase. An RT-PCR control is provided in all reactions for the determination of RT-PCR efficiency. In addition, a detection control is provided as a positive control for detection. The detection of the novel Influenza H1N1 virus is determined by the presence of the H1 specific PCR product, and confirmed by the presence of the Isolation Control product as well as the RT-PCR control product. The H1N1 RT-PCR Primer Set and Controls are also available separately for end-point RT-PCR detection.

Features and Benefits

- Rapid isolation of high quality RNA from nasopharyngeal swabs, nasal swabs, throat swabs and nasal aspirates
- Contains a ready-to-use 2X RT-PCR Master Mix
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

H1N1 RT-PCR Assay Specificity

- The linear range of Norgen's Influenza A Virus (H1N1) RT-PCR Detection Kit was determined by analyzing a dilution series of a H1N1 quantification standard ranging from 1 x 10^7 copies/µl to 1 x 10^{-1} copies/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's Influenza A Virus (H1N1) RT-PCR Detection Kit on 1X TAE 2% Agarose gel.
- The linear range of Norgen's Influenza A Virus (H1N1) RT-PCR Detection Kit has been determined to cover concentrations from 5 x 10^4 copies/mL to at least 1 x 10^9 copies/mL

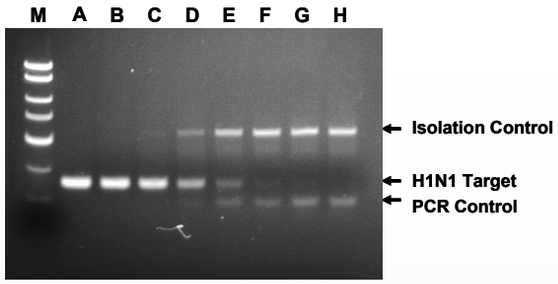

Figure 1. Sensitivity of Detection using the Influenza A Virus (H1N1) RT-PCR Detection Kit. A representative 1X TAE, 2% agarose gel showing the amplification of Influenza A Virus (H1N1) at different concentrations (Target). The size of the H1N1 target amplicon corresponds to the 222 bp band represented by the provided DNA Marker (M). The size of the Isolation Control corresponds to the 499 bp band represented by the provided DNA Marker (M). The Influenza A Virus (H1N1) 2X PCR Master Mix contains a PCR Control which controls for PCR inhibition. The size of the PCR Control corresponds to the 142 bp band represented by the provided DNA Marker (M). Lanes A-G represents with reducing concentration of H1N1 transcript (interpreted as positive results). Lane H represents a no virus control.

Ordering information

Description	Cat #	Size
Urine Influenza A Virus (H1N1) PCR Detection Kit	27900	24 rxns
Influenza A Virus (H1N1) PCR Kit Dx	Dx27920	48 rxns
Influenza A Virus (H1N1) Primer Sets and Controls	27912	100 rxns
Influenza A Virus (H1N1) Real-Time PCR	TM27900	48 rxns
Influenza A Virus (H1N1) Real-Time PCR	SG27900	48 rxns

Bacillus cereus PCR Detection Kit

Cat. # 36900

A ready-to-use system for the isolation and the detection of B. cereus using end-point PCR without enrichment

Norgen's *Bacillus cereus* PCR Detection Kit is a ready-to-use system for the isolation and detection of *Bacillus cereus* without enrichment. First, the kit contains components for the rapid isolation of total DNA, including bacterial DNA, from stool samples using spin-column chromatography based on Norgen's proprietary resin. Second,the kit contains *Bacillus cereus* Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The *Bacillus cereus* Master Mix contains reagents and enzymes for the specific amplification of a 320 bp region of the *Bacillus cereus* genome. In addition, Norgen's *Bacillus cereus* PCR Detection Kit contains a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR with the use of the provided PCR Control (PCRC) or Isolation Control (IsoC). This kit is designed to allow for the testing of 24 samples. The *Bacillus cereus* PCR Primer Set and Controls are also available separately for end-point PCR detection.

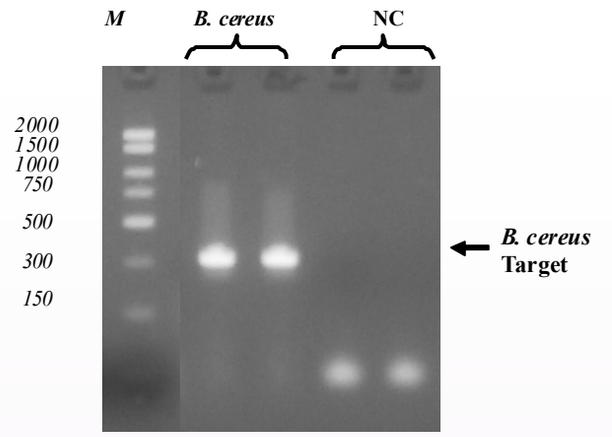

Figure 1. Detection of *B. cereus* using the *B. cereus*PCR Detection Kit. A representative 1X TAE 1.7% agarose gel showing the amplification of *B. cereus* (*B. cereus* Target) using the 2X *B. cereus* PCR Master Mix. The size of the *B. cereus* target amplicon corresponds to 320 bp as represented by the provided DNA Marker (M). NC = Negative Control.

Features and Benefits

- Rapid isolation of high quality DNA from stool
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) of Norgen's *Bacillus cereus* PCR Detection Kit was determined by analyzing a dilution series of a *B. cereus*quantification standard ranging from 1 x 10^7 cfu/µl to 1 x 10^{-1} cfu/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's *Bacillus cereus* PCR Detection Kit on 1X TAE 1.7% Agarose gel.
- The linear range of Norgen's *Bacillus cereus* PCR Detection Kit has been determined to cover concentrations from 1 x 10^2 cfu/µl to at least 1 x 10^6 cfu/µl of isolated DNA

Ordering information

Description	Cat #	Size
Urine *Bacillus cereus* PCR Detection Kit	36900	24 rxns
Bacillus cereus PCR Kit Dx	Dx36920	48 rxns
Bacillus cereus Primer Sets and Controls	36910	100 rxns
Bacillus cereus Real-Time PCR	TM36900	48 rxns
Bacillus cereus Real-Time PCR	SG36900	48 rxns

Clostridium difficile PCR Detection Kit

Cat. # 37100

A ready-to-use system for the isolation and the detection of C. difficile using end-point PCR

Norgen's *Clostridium difficile* PCR Detection Kit is a ready-to-use system for the isolation and detection of *C.difficile*. First, the kit contains components for the rapid isolation of total DNA, including bacterial DNA, from stool samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains *C. difficile* Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The *C. difficile* Master Mix contains reagents and enzymes for the specific amplification of a 325 bp region of the *Clostridium difficile* genome. In addition, Norgen's *Clostridium difficile* PCR Detection Kit contains a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR with the use of the provided PCR Control (PCRC) or Isolation Control (IsoC). This kit is designed to allow for the testing of 24 samples. The *Clostridium difficile* PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality DNA from stool
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) of Norgen's *Clostridium difficile* PCR Detection Kit was determined by analyzing a dilution series of a *C. difficile* quantification standard ranging from 1 x 10^7 cfu/µl to 1 x 10^{-1} cfu/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's *Clostridium difficile* PCR Detection Kit on 1X TAE 1.7% Agarose gel.
- The linear range of Norgen's *Clostridium difficile* PCR Detection Kit has been determined to cover concentrations from 1 x 10^2 cfu/µl to at least 1 x 10^6 cfu/µl of isolated DNA

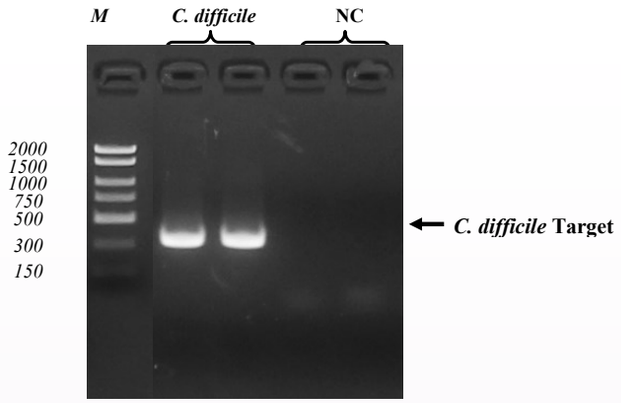

Figure 1. Detection using the *C. difficile* PCR Detection Kit. A representative 1X TAE 1.7% agarose gel showing the amplification of *C. difficile* (*C. difficile* Target) using the 2X *C. difficile* PCR Master Mix. The size of the *C. difficile* target amplicon corresponds to 325 bp as represented by the provided DNA Marker (M). NC = Negative Control.

Ordering information

Description	Cat #	Size
Urine *Clostridium difficile* PCR Detection Kit	37100	24 rxns
Clostridium difficile PCR Kit Dx	Dx37120	48 rxns
Clostridium difficile Primer Sets and Controls	37110	100 rxns
Clostridium difficile Real-Time PCR	TM37100	48 rxns
Clostridium difficile Real-Time PCR	SG37100	48 rxns

Vibrio cholerae PCR Detection Kit

Cat. # 38500

Ready-to-use system for the isolation and the detection of *V. cholerae* using end-point PCR without enrichment

Norgen's *Vibrio cholerae* PCR Detection Kit is a ready-to-use system for the isolation and detection of *Vibrio cholerae* without enrichment. First, the kit contains components for the rapid isolation of total DNA, including bacterial DNA, from stool samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains *Vibrio cholerae* Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The *Vibrio cholerae* Master Mix contains reagents and enzymes for the specific amplification of a 333 bp region of the *Vibrio cholerae* genome. In addition, Norgen's *Vibrio cholerae* PCR Detection Kit contains a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR with the use of the provided PCR Control (PCRC) or Isolation Control (IsoC). This kit is designed to allow for the testing of 24 samples. The *Vibrio cholerae* PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality DNA from stool
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) of Norgen's *Vibrio cholerae* PCR Detection Kit was determined by analysing a dilution series of a V. cholerae quantification standard ranging from 1 x 10^7 cfu/µl to 1 x 10^{-1} cfu/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's *Vibrio cholerae* PCR Detection Kit on 1X TAE 1.7% Agarose gel.
- The linear range of Norgen's *Vibrio cholerae* PCR Detection Kit has been determined to cover concentrations from 1 x 10^2 cfu/µL to at least 1 x 10^6 cfu/µL of isolated DNA

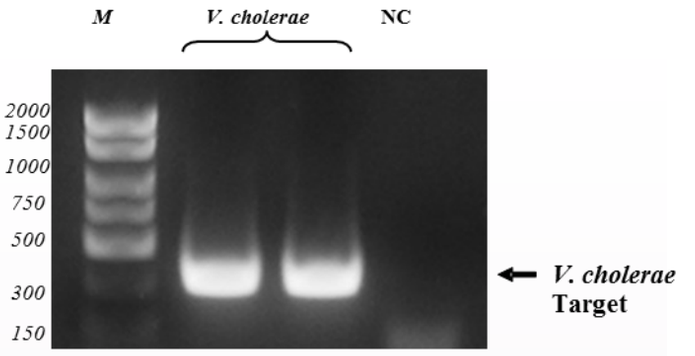

Figure 1. Detection using the *Vibrio cholerae* PCR Detection Kit. A representative 1X TAE 1.7% agarose gel showing the amplification of *V. cholerae* using the*V. cholerae* 2X PCR Master Mix. The size of the *V. cholerae* target amplicon corresponds to 333 bp as represented by the provided DNA Marker (M). NC = Negative Control.

Ordering information

Description	Cat #	Size
Urine *Vibrio cholerae* PCR Detection Kit	38500	24 rxns
Vibrio cholerae PCR Kit Dx	Dx38520	48 rxns
Vibrio cholerae Primer Sets and Controls	38510	100 rxns
Vibrio cholerae Real-Time PCR	TM38500	48 rxns
Vibrio cholerae Real-Time PCR	SG38500	48 rxns

Norovirus RT-PCR Detection Kit

Cat. # 41400

A ready-to-use system for the isolation and detection of Norovirus from stool using end-point RT-PCR

Norgen's Norovirus RT-PCR Detection Kit is a ready-to-use system for the isolation and detection of Norovirus in stool samples. First, the kit contains components for the rapid isolation of total RNA, including viral DNA, from the stool samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains Norovirus Master Mix and controls to allow for PCR ampification, as well as a Control Master Mix to allow for the separate amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time RT-PCR using melt curves.

The Norovirus Master Mix contains reagents and enzymes for the specific amplification of a 295 bp region of the Norovirus genome. In addition, Norgen's Norovirus RT-PCR Detection Kit contains a second Master Mix, The Control 2X RT-PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control (PCRC) or Isolation Control (IsoC). The kit is designed to allow for the testing of 24 samples. The Norovirus RT-PCR Primer Set and Controls are also available separately for end-point RT- PCR detection.

Features and Benefits

- Rapid isolation of high quality RNA from stool
- Contains two ready-to-use 2X RT-PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) of Norgen's Norovirus RT-PCR Detection Kit was determined by analyzing a dilution series of a Norovirus quantification standard ranging from 1 x 10^7 copies/µl to 1 x 10^{-1} copies/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's Norovirus RT-PCR Detection Kit on 1X TAE 2% Agarose gel.
- The linear range of Norgen's Norovirus RT-PCR Master Mix has been determined to cover concentrations from 1 x 10^3 copies to at least 1 x 10^9 copies

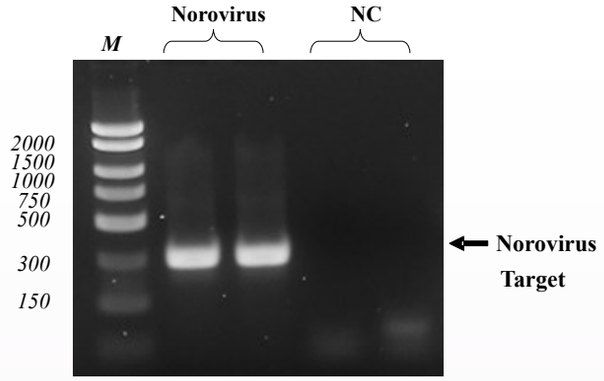

Figure 1. Detection of Norovirus using the Norovirus RT-PCR Detection Kit. A representative 1X TAE 1.7% agarose gel showing the amplification of Norovirus (Norovirus Target) using the Norovirus 2X Detection RT-PCR Mastermix. The size of the Norovirus target amplicon corresponds to 295 bp as represented by the provided DNA Marker (M). NC = Negative Control.

Ordering information

Description	Cat #	Size
Norovirus PCR Detection Kit	41400	24 rxns
Norovirus PCR Kit Dx	Dx41420	48 rxns
Norovirus Primer Sets and Controls	41410	100 rxns
Norovirus Real-Time PCR	TM41400	48 rxns
Norovirus Real-Time PCR	SG41400	48 rxns

Sin Nombre RT-PCR Detection Kit

Cat. # 51900

A ready-to-use system for the isolation and detection of SNV using end-point RT-PCR

Norgen's Sin Nombre Virus RT-PCR Detection Kit is a ready-to-use system for the isolation and detection of Sin nombre virus (SNV) from blood samples. First, the kit contains components for the rapid isolation of total RNA, including viral RNA, from the samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains SNV Master Mix to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an isolation control and a PCR control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time RT-PCR using melt curves.

The SNV RT-PCR Detection Mastermix contains reagents and enzymes for the specific amplification of a 341 bp region of the viral genome. In addition, Norgen's Sin Nombre Virus RT-PCR Detection Kit contains a second Mastermix, the Control RT-PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate RT-PCR reaction with the use of the provided PCR control (PCRC) or Isolation Control (IsoC), respectively. This kit is designed to allow for the testing of 24 samples. The SNV RT-PCR Primer Set and Controls are also available separately for end-point RT-PCR detection.

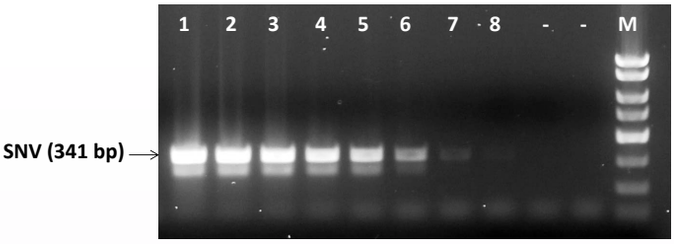

Figure 1. Detection of SNV using the Sin Nombre Virus RT-PCR Detection Kit. A representative 1X TAE 1.5% agarose gel showing the amplification of SNV serially diluted (lane 1 to 8). The size of the SNV target amplicon corresponds to 341 bp as represented by the provided DNA Marker (M). Negative control is indicated as (-).

Features and Benefits

- Rapid isolation of high quality RNA from blood
- Contains two ready-to-use 2X RT-PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range of Norgen's SNV RT-PCR Detection Kit was determined by analyzing a dilution series of a SNV quantification standards ranging from 8 fg to 8 pg.
- Each dilution has been tested in replicates (n = 4) using Norgen's SNV RT-PCR Detection Kit on a 1X TAE 1.5% agarose gel.
- The linear range of Norgen's SNV RT-PCR Detection Kit has been determined to cover concentrations from 8 fg to 8 pg.
- Under the conditions of the Norgen's SNV RNA Isolation procedure, Norgen's SNV RT-PCR Detection Kit covers a linear range from 1000 copies to 1 x 10^9copies.

Ordering information

Description	Cat #	Size
Urine Sin Nombre PCR Detection Kit	51900	24 rxns
Sin Nombre PCR Kit Dx	Dx51920	48 rxns
Sin Nombre Primer Sets and Controls	51910	100 rxns
Sin Nombre Real-Time PCR	TM51900	48 rxns
Sin Nombre Real-Time PCR	SG51900	48 rxns

RSV-A RT-PCR Detection Kit

Cat. # 34200

Rapid purification and detection of Human Respiratory Syncytial Virus A (RSV-A) from nasopharyngeal swabs, throat swabs and nasal aspirates

Norgen's RSV-A RT-PCR Detection Kit is a ready-to-use system for the purification and detection of Human Respiratory Syncytial Virus A (RSV-A) using end-point PCR from nasopharyngeal swabs, throat swabs and nasal aspirates. First the kit contains components for the purification of viral RNA using Norgen's proprietary spin column technology. Second, the kit contains RSV-A RT-PCR Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The reaction first involves the reverse transcription of the viral RNA into cDNA followed by PCR amplification of the nucleocapsid viral RNA transcript of RSV-A using a thermo -stable polymerase. Norgen's RSV-A RT-PCR Detection Kit contains a second Master Mix, the RT-PCR Control Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the internal PCR Control (PCRC) or the provided Isolation Control (IsoC), respectively. The RSV-A RT-PCR Primer Set and Controls are also available separately for end-point RT-PCR detection.

Features and Benefits

- Rapid isolation of high quality RNA from nasopharyngeal swabs, throat swabs and nasal aspirates
- Contains two ready-to-use 2X RT-PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

RSV-A RT-PCR Assay Specificity

- The linear range of Norgen's RSV-A RT-PCR Detection Kit was determined by analyzing a dilution series of an RSV-A quantification standard ranging from 1 x 10^7 copies/µl to 1 x 10^{-1} copies/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's RSV-A RT-PCR Detection Kit on 1X TAE 2% Agarose gel.
- The linear range of Norgen's RSV-A RT-PCR Detection Kit has been determined to cover concentrations from 5 x 10^3 copies/mL to at least 1 x 10^9 copies/mL

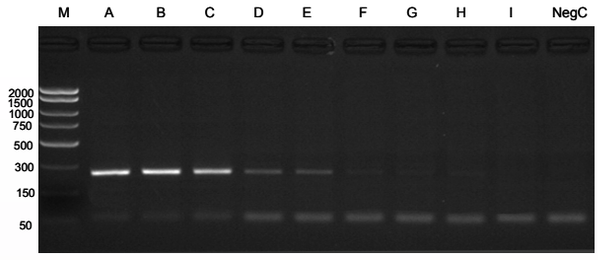

Figure 1. Sensitivity of Detection using the Human Respiratory Syncytial Virus A (RSV-A) RT-PCR Detection Kit. A representative 1X TAE, 2% agarose gel showing the amplification of the Human Respiratory Syncytial Virus A (RSV-A) at different concentrations (Target). The size of the RSV-A target amplicon corresponds to the 280 bp band represented by the provided DNA Marker (M). Lanes A-I contain decreasing concentrations of RSV-A transcript. Lane H represents a no virus control.

Ordering information

Description	Cat #	Size
Urine RSV-A PCR Detection Kit	34200	24 rxns
RSV-A PCR Kit Dx	Dx34220	48 rxns
RSV-A Primer Sets and Controls	34210	100 rxns
RSV-A Real-Time PCR	TM34200	48 rxns
RSV-A Real-Time PCR	SG34200	48 rxns

For research use only and NOT intended for in vitro diagnostics

Urine-Based Chlamydia/Neisseria gonorrhoeae PCR Detection Kit Cat. # 42500

A ready-to-use system for the isolation, detection and differentiation of Chlamydia and Neisseria gonorrhoeae using end-point PCR

Norgen's Urine-Based Chlamydia/*Neisseria gonorrhoeae* PCR Detection Kit is a ready-to-use system for the isolation, detection and differentiation of Chlamydia and/or *N. gonorrhoeae*. First, the kit contains components for the isolation of total DNA, including bacterial DNA, from the urine samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains a Chlamydia/*N. gonorrhoeae* Master Mix and controls for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrohporesis. Alternatively, detection can be performed by real-time PCR using melt curves.
The Chlamydia/*N. gonorrhoeae* Master Mix contains reagents and enzymes for the specific amplification of a 360 bp region of the Chlamydia's Cryptic plasmid and/or a 260 bp region of the *N. gonorrhoeae*'s PorA gene. This kit contains a second Master Mix, the control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control (PCRC) or Isolation Control (IsoC). The kit is designed to allow for the testing of 24 samples.

Features and Benefits

- Rapid isolation of high quality DNA from urine
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Detect and differentiate Chlamydia and *Neisseria gonorrhoeae*
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) was determined by analyzing a dilution series of Chlamydia and *Neisseria gonorrhoeae* quantitative standard ranging from 8.46 x 10^9 copies/µl to 1 x 10^{-1} copies/µl.
- Each dilution has been tested in replicates (n = 4) on 1X TAE, 1.7% Agarose gels.
- The linear range has been determined to cover concentrations from 0.2 copies/µl to at least 8 x 10^6 copies/µl
- Under the conditions of Norgen's Urine DNA Isolation procedure, this kit covers a linear range for Chlamydia from 600 copies/mL urine to at least 8 x 10^9 copies/mL urine and covers a linear range for *Neisseria gonorrhoeae* from 800 copies/mL urine to at least 8 x 10^9 copies/mL urine.

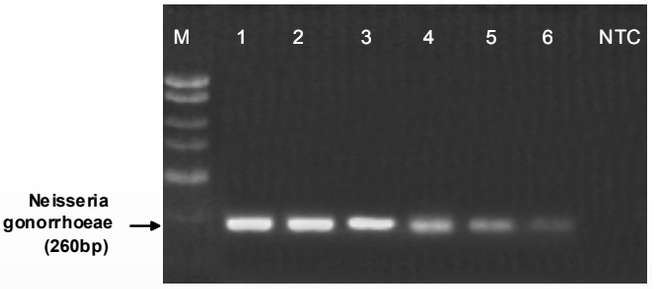

Figure 1. Detection of *Neisseria gonorrhoeae* using the Urine-Based *Chlamydia/Neisseria gonorrhoeae* PCR Detection Kit . A representative 1X TAE 2% agarose gel showing the amplification of *Neisseria gonorrhoeae* at different concentrations (Target). The size of the *Neisseria gonorrhoeae* target amplicon corresponds to the 260 bp band represented by the provided DNA Marker (M). NTC = Negative Control.

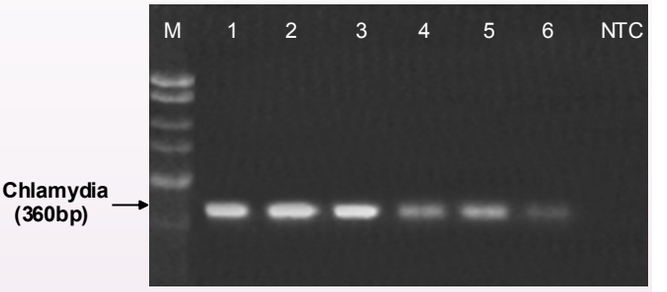

Figure 2. Detection of Chlamydia using the Urine-Based Chlamydia/Neisseria gonorrhoeae PCR Detection Kit. A representative 1X TAE 2% agarose gel showing the amplification of Chlamydia at different concentrations (Target). The size of the Chlamydia target amplicon corresponds to the 360 bp band represented by the provided DNA Marker (M). NTC = Negative Control

Ordering information

Description	Cat #	Size
Urine Chlamydia/Neisseria gonorrhoeae PCR Detection Kit	42500	24 rxns

For research use only and NOT intended for in vitro diagnostics

Urine-Based Trichomonas vaginalis PCR Detection Kit — Cat. # 52000

A ready-to-use system for the isolation and detection of Trichomonas vaginalis from urine using end-point PCR

Norgen's Urine-Based *Trichomonas vaginalis* PCR Detection Kit is a ready-to-use system for the isolation and detection of *Trichomonas vaginalis*. First the kit contains components for the rapid isolation of total DNA from the urine samples using spin-column chromatography based on Norgen's proprietary resin. Second the kit contains *Trichomonas vaginalis* Master Mix and controls for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed by real-time PCR using melt curves.

The *Trichomonas vaginalis* Master Mix contains reagents and enzymes for the specific amplification of a 335 bp region of the *Trichomonas vaginalis* genome. In addition, Norgen's Urine-Based *Trichomonas vaginalis* PCR Detection Kit contains a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control (PCRC) or Isolation Control (IsoC). The kit is designed to allow for the testing of 24 samples. The *Trichomonas vaginalis* PCR Primer Set and Controls are also available separately for end-point PCR detection.

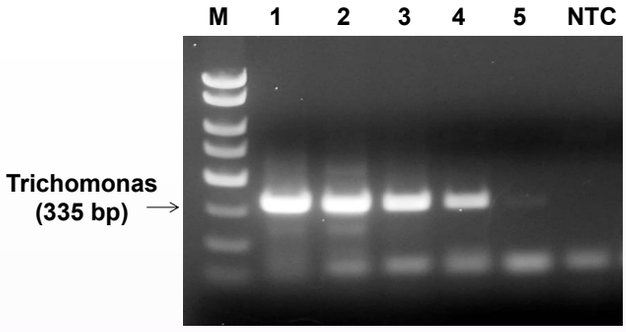

Figure 1. Detection of *Trichomonas vaginalis* using the Urine-Based *Trichomonas vaginalis* PCR Detection Kit. A representative 1X TAE 1.5% agarose gel showing the amplification of Trichomonas at different concentrations (Trichomonas Target). The size of the Trichomonas target amplicon corresponds to 335 bp as represented by the provided DNA Marker (M). NTC = Negative Control.

Features and Benefits

- Rapid isolation of high quality DNA from urine
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range of Norgen's Urine-Based Trichomonas vaginalis PCR Detection Kit was determined by analyzing a dilution series of a Trichomonas quantification standards ranging from 1pg to 10 ng.
- Each dilution has been tested in replicates (n = 4) using Norgen's Urine-Based Trichomonas vaginalis PCR Detection Kit on a 1X TAE 1.5% agarose gel.
- The linear range of Norgen's Urine-Based Trichomonas vaginalis PCR Detection Kit has been determined to cover concentrations from 6 copies/µL to at least 6 x 105 copies/µL
- Under the conditions of the Norgen's Urine-Based Trichomonas DNA Isolation procedure, Norgen's Trichomonas vaginalis PCR Detection Kit covers a linear range from 100 copies/mL urine to at least 1 x 106 copies/mL urine

Ordering information

Description	Cat #	Size
Urine *Trichomonas vaginalis* PCR Detection Kit	52000	24 rxns
Trichomonas vaginalis Primer Sets and Controls	52010	100 rxns
Trichomonas vaginalis Real-Time PCR	TM52000	48 rxns
Trichomonas vaginalis Real-Time PCR	SG52000	48 rxns

Urine-Based Malaria PCR Detection Kit

Cat. # 34800

A ready-to-use system for the isolation and detection of Malaria from urine using end-point PCR

Norgen's Urine-Based Malaria PCR Detection Kit is a ready-to-use system for the isolation and detection of Malaria from urine. First the kit contains components for the rapid isolation of total DNA, including bacterial DNA, from the urine samples using spin-column chromatography based on Norgen's proprietary resin. Second the kit contains Malaria PCR Master Mix and controls for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrohporesis. Alternatively, detection can be performed by real-time PCR using melt curves.

The Malaria Master Mix contains reagents and enzymes for the specific amplification of a 350 bp region of the Malaria DNA. In addition, Norgen's Urine-Based Malaria PCR Detection Kit contains a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control (PCRC) or Isolation Control (IsoC). The kit is designed to allow for the testing of 24 samples. The Malaria PCR Primer Set and Controls are also available separately for end-point RT-PCR detection.

Features and Benefits

- Rapid isolation of high quality DNA from urine
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) of Norgen's Urine-Based Malaria PCR Detection Kit was determined by analyzing a dilution series of Malaria quantitative standard ranging from 8.46 x 10^9 copies/µl to 1 x 10^{-1} copies/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's Urine-Based Malaria PCR Detection Kit on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's Urine-Based Malaria PCR Detection Kit has been determined to cover concentrations from 8 copies/µl to at least 8 x 10^6 copies/µl
- Under the conditions of Norgen's Urine DNA Isolation procedure, Norgen's Urine-Based Malaria PCR detection Kit covers a linear range from 860 copies/mL urine to at least 8 x 10^9 copies/mL urine.

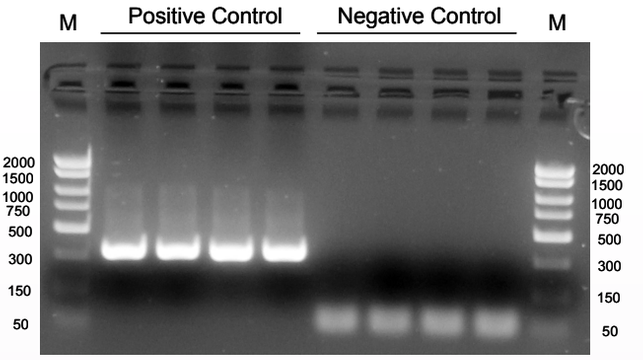

Figure 1. Detection of Malaria using the Urine-Based Malaria PCR Detection Kit. A representative 1X TAE 2% agarose gel showing the amplification of Malaria. The size of the Malaria target amplicon corresponds to the 350 bp band represented by the provided DNA Marker (M). No amplification of the target is observed with the Negative Control.

Ordering information

Description	Cat #	Size
Urine Malaria PCR Detection Kit	34800	24 rxns
Malaria PCR Kit Dx	Dx34820	48 rxns
Malaria Primer Sets and Controls	34810	100 rxns
Malaria Real-Time PCR	TM34800	48 rxns
Malaria Real-Time PCR	SG34800	48 rxns

Urine-Based XMRV RT-PCR Detection Kit

Cat. # 34700

A ready-to-use system for the isolation and detection of XMRV viral RNA from urine using end-point RT-PCR

Xenotropic murine leukemia virus-related virus (XMRV) belongs to the family Retroviridae and the genus gammaretrovirus. The virus was first described in 2006 and has since been isolated from human biological samples. Norgen's Urine-Based XMRV RT-PCR Detection Kit is a ready-to-use system for the isolation and detection of XMRV from urine. First the kit contains components for the rapid isolation of total RNA, including viral RNA, from the urine samples using spin-column chromatography based on Norgen's proprietary resin. Second the kit contains XMRV RT-PCR Master Mix and controls for PCR Amplification, as well as a Control RT-PCR Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed by real-time PCR using melt curves.

The XMRV Master Mix contains reagents and enzymes for the specific amplification of a 300 bp region of XMRV. In addition, Norgen's Urine-Based XMRV RT-PCR Detection Kit contains a second Master Mix, the Control 2x RT-PCrR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation. The kit is designed to allow for the testing of 24 samples. The XMRV RT-PCR Primer Set and Controls are also available separately for end-point RT-PCR detection.

Features and Benefits

- Rapid isolation of high quality viral DNA from urine
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range of Norgen's XMRV RT-PCR Kit Dx was determined by analyzing a dilution series of XMRV quantitative standard ranging from 8.46 x 109 VP/µl to 1 x 10-1 IU/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's XMRV RT-PCR Kit Dx on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's XMRV RT-PCR Kit Dx has been determined to cover concentrations from 9 VP/µl to at least 8 x 106 VP/µl

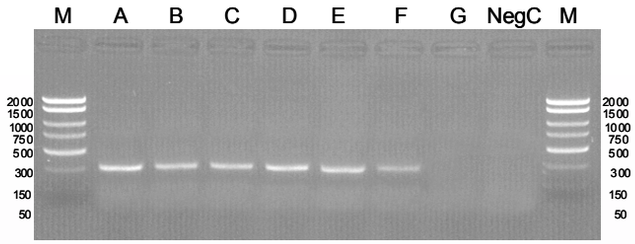

Figure 1. Detection of XMRV using the Urine-Based XMRV RT-PCR Detection Kit. A representative 1X TAE, 1.7% agarose gel showing the amplification of XMRV at different concentrations. The size of the XMRV target amplicon corresponds to the 311bp band represented by the provided DNA Marker (M). Lanes A-G represents samples spiked with different XMRV concentrations isolated from 10mL urine samples (interpreted as positive results).

Ordering information

Description	Cat #	Size
Urine XMRV PCR Detection Kit	34700	24 rxns
XMRV PCR Kit Dx	Dx34720	48 rxns
XMRV Primer Sets and Controls	34710	100 rxns
XMRV Real-Time PCR	TM34700	48 rxns
XMRV Real-Time PCR	SG34700	48 rxns

For research use only and NOT intended for in vitro diagnostics

Urine-Based Chlamydia PCR Detection Kit

Cat. # 31400

A ready-to-use system for the isolation and detection of Chlamydia from urine using end-point PCR

Norgen's Urine-Based Chlamydia PCR Detection Kit is a ready-to-use system for the isolation and detection of Chlamydia from urine. First the kit contains components for the rapid isolation of total DNA, including bacterial DNA, from the urine samples using spin-column chromatography based on Norgen's proprietary resin. Second the kit contains Chlamydia Master Mix and controls for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed by real-time PCR using melt curves.

The Chlamydia Master Mix contains reagents and enzymes for the specific amplification of a 260 bp region of the Chlamydia's Cryptic plasmid. In addition, Norgen's Urine-Based Chlamydia PCR Detection Kit contains a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control (PCRC) or Isolation Control (IsoC). The kit is designed to allow for the testing of 24 samples. The Chlamydia PCR Primer Set and Controls are also available separately for end-point PCR detection.

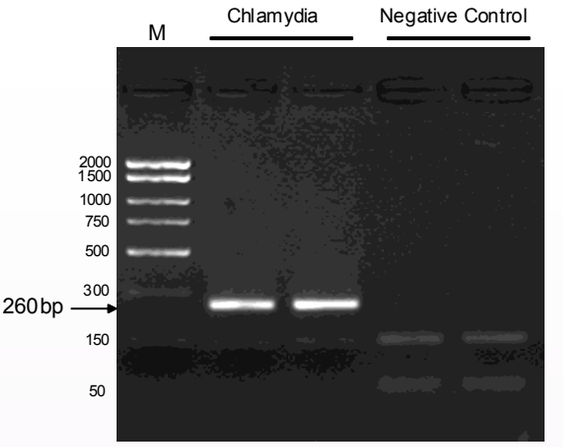

Figure 1. Detection of Chlamydia using the Chlamydia PCR Detection Kit. A representative 1X TAE 2% agarose gel showing the amplification of Chlamydia. The size of the Chlamydia target amplicon corresponds to the 260 bp band represented by the provided DNA Marker (M). No amplification of the target is observed in with the Negative Control.

Features and Benefits

- Rapid isolation of high quality DNA from urine
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range of Norgen's Urine-Based Chlamydia PCR Detection Kit was determined by analyzing a dilution series of Chlamydia quantitative standard ranging from 8.46 x 10^9 copies/µl to 1 x 10^{-1} copies/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's Urine-Based Chlamydia PCR Detection Kit on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's Urine-Based Chlamydia PCR Detection Kit has been determined to cover concentrations from 0.2 copies/µl to at least 8 x 10^6copies/µl
- Under the conditions of Norgen's Urine DNA Isolation procedure, Norgen's Urine-Based Chlamydia PCR detection Kit covers a linear range from 200 copies/ mL urine to at least 8 x 10^9 copies/mL urine.

Ordering information

Description	Cat #	Size
Urine Chlamydia PCR Detection Kit	31400	24 rxns
Chlamydia Primer Sets and Controls	31410	100 rxns
Chlamydia Real-Time PCR	TM31400	48 rxns
Chlamydia Real-Time PCR	SG31400	48 rxns

Urine-Based Neisseria gonorrhoeae PCR Detection Kit — Cat. # 30900

A ready-to-use system for the isolation and detection of N. gonorrhoeae from urine using end-point PCR

Norgen's Urine-Based *Neisseria gonorrhoeae* PCR Detection Kit is a ready-to-use system for the isolation and detection of *N. gonorrhoeae* from urine. First, the kit contains components for the isolation of total DNA, including bacterial DNA, from the urine samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains *N. gonorrhoeae* Master Mix and controls for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed by real-time PCR using melt curves.

The *N. gonorrhoeae* Master Mix contains reagents and enzymes for the specific amplification of a 260 bp region of the *N. gonorrhoeae*'s PorA gene. In addition, Norgen's Urine-Based *Neisseria gonorrhoeae* PCR Detection Kit contains a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control (PCRC). The kit is designed to allow for the testing of 24 samples. The *N. gonorrhoeae* PCR Primer Set and Controls are also available separately for end-point PCR detection.

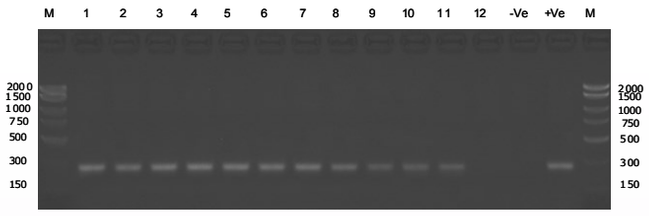

Figure 1. Detection of *N. gonorrhoeae* using the *N. gonorrhoeae* PCR Detection Kit. A representative 1X TAE, 1.7% agarose gel showing the amplification of *N. gonorrhoeae* at different concentrations (Target). The size of the *N. gonorrhoeae* target amplicon corresponds to the 260 bp band represented by the provided DNA Marker (M). Lanes A-L represents samples spiked with different *N. gonorrhoeae*concentrations.

Features and Benefits

- Rapid isolation of high quality DNA from urine
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range of Norgen's Urine-Based *N. gonorrhoeae* PCR Detection Kit was determined by analyzing a dilution series of *N. gonorrhoeae* quantitative standard ranging from 8.46 x 10^9 copies/µl to 1 x 10^{-1} copies/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's Urine-Based*N. gonorrhoeae* PCR Detection Kit on 1X TAE, 1.7% agarose gels.
- The linear range of Norgen's Urine-Based *N. gonorrhoeae* PCR Detection Kit has been determined to cover concentrations from 0.2 copies/µl to at least 8 x 10^6 copies/µl
- Under the conditions of Norgen's Urine DNA Isolation procedure, Norgen's Urine-Based *N. gonorrhoeae* PCR detection Kit covers a linear range from 200 copies/mL urine to at least 8 x 10^9 copies/mL urine.

Ordering information

Description	Cat #	Size
Urine *Neisseria gonorrhoeae* PCR Detection Kit	30900	24 rxns
Neisseria gonorrhoea PCR Kit Dx	Dx30920	48 rxns
Neisseria gonorrhoeae Primer Sets and Controls	30910	100 rxns
Neisseria gonorrhoeae Real-Time PCR	TM30900	48 rxns
Neisseria gonorrhoeae Real-Time PCR	SG30900	48 rxns

Urine-Based Candida Albicans PCR Detection Kit

Cat. # 34000

A ready-to-use system for the isolation and detection of Candida albicans from urine using end -point PCR

Norgen's Urine-Based *Candida albicans* PCR Detection Kit is a ready-to-use system for the isolation and detection of *Candida albicans* from urine. First the kit contains components for the rapid isolation of fungal DNA from the urine samples using spin-column chromatography based on Norgen's proprietary resin. Second the kit contains *Candida albicans* Master Mix and controls for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed by real-time PCR using melt curves.

The *Candida albicans* Master Mix contains reagents and enzymes for the specific amplification of a 308 bp region of *Candida albicans*. In addition, Norgen's Urine-Based *Candida albicans* PCR Detection Kit contains a second contains a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the PCR Control (PCRC) or Isolation Control (IsoC). The kit is designed to allow for the testing of 24 samples. The *Candida albicans* PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality DNA from urine
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range of Norgen's Urine-Based *Candida albicans* PCR Detection Kit was determined by analyzing a dilution series of *Candida albicans* quantitative standard ranging from 8.46 x 10^9 copies/µl to 1 x 10^{-1} copies/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's Urine-Based*Candida albicans* PCR Detection Kit on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's Urine-Based *Candida albicans* PCR Detection Kit has been determined to cover concentrations from 1 copy/µl to at least 8 x 10^6copies/µl
- Under the conditions of Norgen's Urine DNA Isolation procedure, Norgen's Urine-Based *Candida albicans* PCR detection Kit covers a linear range from 2000 copies/mL urine to at least 8 x 10^9 copies/mL urine.

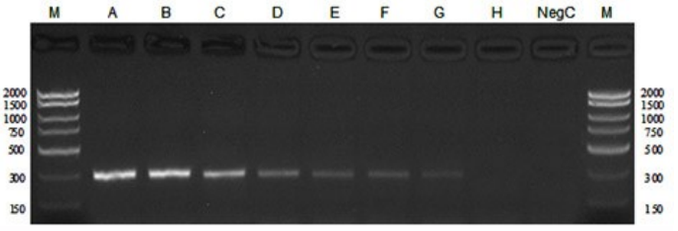

Figure 1. A representative 1X TAE, 1.7% agarose gel showing the amplification of *Candida albicans* at different concentrations. The size of the *Candida albicans* target amplicon corresponds to the 306 bp band represented by the provided DNA Marker (M). Lanes A-G represents samples spiked with different *Candida albicans* concentrations.

Ordering information

Description	Cat #	Size
Urine Candida albicans PCR Detection Kit	34000	24 rxns
Candida albicans PCR Kit Dx	Dx34020	48 rxns
Candida albicans Primer Sets and Controls	34010	100 rxns
Candida albicans Real-Time PCR	TM34000	48 rxns
Candida albicans Real-Time PCR	SG34000	48 rxns

HBV PCR Detection Kits

Cat. # 29200, 29800

A ready-to-use system for the isolation and detection of HBV from urine or plasma/serum using end-point PCR.

Norgen's HBV PCR Detection Kits are a ready-to-use system for the isolation and detection of the Hepatitis B virus (HBV). First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from the urine or plasma/serum samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains HBV Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The HBV Master Mix contains reagents and enzymes for the specific amplification of a 305 bp region of the HBV viral genome. In addition, Norgen's HBV PCR Detection Kits contain a second Master Mix, the Control 2x PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control or Isolation Control. The kit is designed to allow for the testing of 24 samples. The HBV PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality DNA from urine or plasma/serum
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range of Norgen's HBV PCR Detection Kits were determined by analyzing a dilution series of an HBV quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} VP/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's HBV PCR Detection Kits on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's HBV PCR Detection Kits has been determined to cover concentrations from 0.5 VP/µl to at least 8 x 10^6 VP/µl
- Under the conditions of Norgen's DNA Isolation procedure, Norgen's HBV PCR detection Kits cover a linear range from 20 VP/mL plasma/serum to at least 8 x 10^9 VP/mL plasma/serum

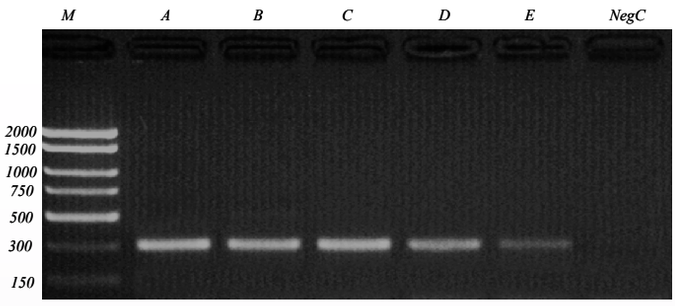

Figure 1. Detection of HBV using the HBV PCR Detection Kit. A representative 1X TAE, 1.7% agarose gel showing the amplification of HBV at different concentrations (Target). The size of the HBV target amplicon corresponds to the 305bp band represented by the provided DNA Marker (M). Lanes A-E represents samples spiked with different HBV concentrations.

Ordering information

Description	Cat #	Size
Urine HBV PCR Detection Kit	29200	24 rxns
Plasma/Serum HBV PCR Detection Kit	29800	24 rxns
HBV Primer Sets and Controls	29210	100 rxns
HBV Real-Time PCR	TM29200	48 rxns
HBV Real-Time PCR	SG29200	48 rxns

HPV (High and Low Risk) PCR Detection Kits

Cat. # 31500, 31600

A ready-to-use system for the isolation and detection of 5 low-risk and 13 high/intermediate-risk HPV types

More than 70 types of human papillomavirus (HPV) have been identified, and are generally classified as high-risk or low-risk depending on their relationship or lack of relationship with cancer and high-grade cervical intraepithelial neoplasia (CIN 2-3).

Norgen's HPV (High and Low Risk) PCR Detection Kits are a ready-to-use system for the isolation and detection of 5 low-risk (6/11/42/43/44) and 13 high/intermediate-risk (16/18/31/33/35/39/45/51/52/56/58/59/68) HPV types from urine or plasma/serum. First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from the urine samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains HPV (High and Low Risk) Master Mix and controls to allow for PCR amplification. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The HPV (High and Low Risk) Master Mix contains reagents and enzymes for the specific amplification of a 280 bp region of HPV High and Low Risk. In addition, Norgen's HPV (High and Low Risk) PCR Detection Kits contain a second heterologous amplification system to identify possible PCR inhibition and/or inadequate isolation. The kit is designed to allow for the testing of 24 samples. The HPV (High and Low Risk) PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality viral DNA from urine or plasma/serum
- Ready-to-use 2X PCR Mastermix
- Detect 5 low-risk and 13 high/intermediate risk HPV types
- High sensitivity and specificity
- Multiplex PCR with an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range was determined by analyzing a dilution series of HPV quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} VP/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's HPV (High and Low Risk) PCR Detection Kits on 1X TAE, 1.7% agarose gels.
- The linear range of kits has been determined to cover concentrations from 0.2 VP/µl to at least 8 x 10^6 VP/µl
- Under the conditions of Norgen's DNA Isolation procedure, these kits cover a linear range from 200VP/mL to at least 8 x 10^9 VP/mL urine or plasma/serum.

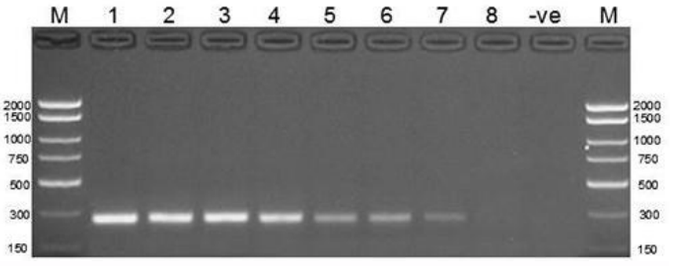

Figure 1. Detection of HPV using the HPV (High and Low Risk) PCR Detection Kit. A representative 1X TAE 2% agarose gel showing the amplification of HPV at different concentrations. The size of the HPV target amplicon corresponds to the 280 bp band represented by the provided DNA Marker (M). No amplification of the target is observed in with the Negative Control.

Ordering information

Description	Cat #	Size
Urine HPV (High and Low Risk) PCR Detection Kit	31500	24 rxns
Plasma/Serum HPV (High and Low Risk) PCR Detection Kit	31600	24 rxns
HPV PCR Kit Dx	Dx31520	48 rxns
HPV (High and Low Risk) Primer Sets and Controls	31510	100 rxns
HPV (High and Low Risk) Real-Time PCR	TM31500	48 rxns
HPV (High and Low Risk) Real-Time PCR	SG31500	48 rxns

HPV (High Risk) PCR Detection Kits

Cat. # 32200, 32300

A ready-to-use system for the isolation and detection of 13 high/intermediate-risk HPV types

More than 70 types of human papillomavirus (HPV) have been identified, and are generally classified as high-risk or low-risk depending on their relationship or lack of relationship with cancer and high-grade cervical intraepithelial neoplasia (CIN 2-3).

Norgen's HPV (High Risk) PCR Detection Kit is a ready-to-use system for the isolation and detection of 13 high/intermediate-risk HPV types (16 / 18 / 31 / 33 / 35 / 39 / 45 / 51 / 52 / 56 / 58 / 59 / 68) from urine. First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from the urine samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains HPV (High Risk) Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The HPV (High Risk) Master Mix contains reagents and enzymes for the specific amplification of a 391 bp region of HPV High Risk group. In addition, Norgen's Urine-Based HPV (High Risk) PCR Detection Kit contains a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control (PCRC) or Isolation Control (IsoC). The kit is designed to allow for the testing of 24 samples. The HBV (High Risk) PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality viral DNA from urine or plasma/serum
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range was determined by analyzing a dilution series of HPV quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} VP/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's HPV (High Risk) PCR Detection Kits on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's HPV (High Risk) PCR Detection Kits has been determined to cover concentrations from 0.2 VP/µl to at least 8 x 10^6 VP/µl
- Under the conditions of Norgen's DNA Isolation procedure, Norgen's HPV (High Risk) PCR detection Kits cover a linear range from 200VP/mL to at least 8 x 10^9 VP/mL urine or plasma/serum.

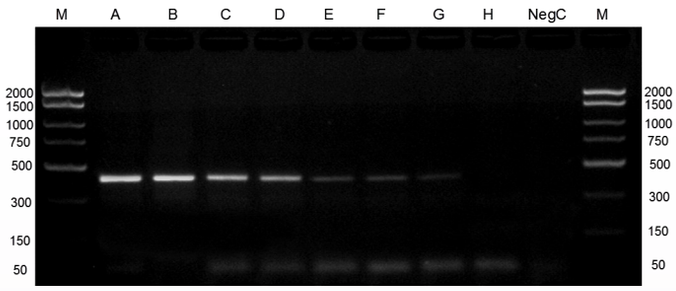

Figure 1. Detection of HPV. A representative 1X TAE, 1.7% agarose gel showing the amplification of HPV (High Risk) at different concentrations (Target). The size of the HPV (High Risk) target amplicon corresponds to the 391 bp band represented by the provided DNA Marker (M). Lanes A-H represents samples spiked with different HPV concentrations isolated from 0.5mL urine (interpreted as positive results). The HPV spiked in urine samples is a cloned PCR product.

Ordering information

Description	Cat #	Size
Urine HPV (High Risk) PCR Detection Kit	32200	24 rxns
Plasma/Serum HPV (High Risk) PCR Detection Kit	32300	24 rxns
HPV (High Risk) PCR Kit Dx	Dx32220	48 rxns
HPV (High Risk) Primer Sets and Controls	32210	100 rxns
HPV (High Risk) Real-Time PCR	TM32200	48 rxns
HPV (High Risk) Real-Time PCR	SG32200	48 rxns

HSV-1 PCR Detection Kits

Cat. # 32600, 32700

A ready-to-use system for the isolation and detection of HSV-1 from urine or plasma/serum using end-point PCR

Norgen's HSV-1 PCR Detection Kits are a ready-to-use system for the isolation and detection of herpes simplex virus type-1 (HSV-1) from urine or plasma/serum. First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from the urine or plasma/serum samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains HSV-1 Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.
The HSV-1 Master Mix contains reagents and enzymes for the specific amplification of a 275 bp region of HSV-1. In addition, Norgen's HSV-1 PCR Detection Kits contain a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the PCR Control (PCRC) or Isolation Control (IsoC). The kit is designed to allow for the testing of 24 samples. The HSV-1 PCR Primer Set and Controls are also available separately for end-point PCR detection.

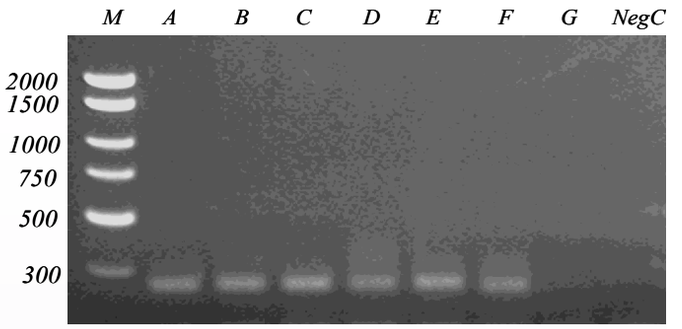

Figure 1. Detection of HSV-1 using the HSV-1 PCR Detection Kit. A representative 1X TAE, 1.7% agarose gel showing the amplification of HSV-1 at different concentrations. The size of the HSV-1 target amplicon corresponds to the 255 bp band represented by the provided DNA Marker (M). Lanes A-G represents samples spiked with different HSV-1 concentrations.

Features and Benefits

- Rapid isolation of high quality DNA from urine or plasma/serum
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range of Norgen's HSV-1 PCR Detection Kits was determined by analyzing a dilution series of HSV-1 quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} VP/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's HSV-1 PCR Detection Kits on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's HSV-1 PCR Detection Kits has been determined to cover concentrations from 0.2 VP/µl to at least 8 x 10^6 VP/µl
- Under the conditions of Norgen's DNA Isolation procedure, Norgen's HSV-1 PCR detection Kits cover a linear range from 200VP/mL to at least 8 x 10^9 VP/mL urine or plasma/serum.

Ordering information

Description	Cat #	Size
Urine HSV-1 PCR Detection Kit	32600	24 rxns
Plasma/Serum HSV-1 PCR Detection Kit	32700	24 rxns
HSV-1 PCR Kit Dx	Dx32620	48 rxns
HSV-1 Primer Sets and Controls	32610	100 rxns
HSV-1 Real-Time PCR	TM32600	48 rxns
HSV-1 Real-Time PCR	SG32600	48 rxns

HSV-2 PCR Detection Kits

Cat. # 32400, 32500

A ready-to-use system for the isolation and detection of HSV-2 from urine or plasma/serum using end-point PCR.

Norgen's HSV-2 PCR Detection Kits are a ready-to-use system for the isolation and detection of herpes simplex virus type-2 (HSV-2) from urine or plasma/serum. First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from the urine samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains HSV-2 Master Mix and controls to allow for PCR amplification. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.
The HSV-2 Master Mix contains reagents and enzymes for the specific amplification of a 350 bp region of HSV-2. In addition, Norgen's HSV-2 PCR Detection Kits contain a second heterologous amplification system to identify possible PCR inhibition and/or inadequate isolation. The kit is designed to allow for the testing of 24 samples. The HSV-2 PCR Primer Set and Controls are also available separately for end-point PCR detection.

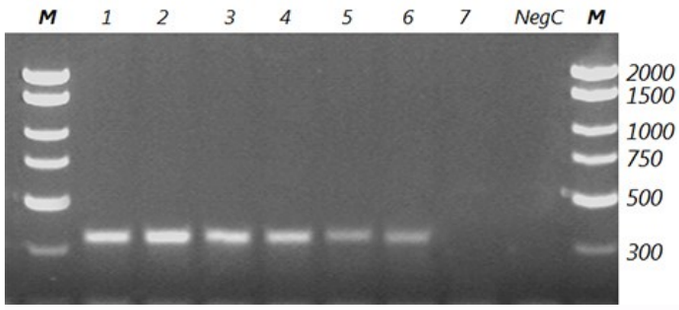

Figure 1. A representative 1X TAE 2% agarose gel showing the amplification of HSV-2. The size of the HSV-2 target amplicon corresponds to the 391 bp band represented by the provided DNA Marker (M). No amplification of the target is observed in with the Negative Control

Features and Benefits

- Rapid isolation of high quality viral DNA from urine or plasma/serum
- Contains a ready-to-use 2X PCR Mastermix
- High sensitivity and specificity
- Multiplex PCR with an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range of Norgen's HSV-2 PCR Detection Kits was determined by analyzing a dilution series of HSV-2 quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} VP/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's HSV-2 PCR Detection Kits on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's HSV-2 PCR Detection Kits has been determined to cover concentrations from 0.2 VP/µl to at least 8 x 10^6 VP/µl
- Under the conditions of Norgen's DNA Isolation procedure, Norgen's HSV-2 PCR detection Kits cover a linear range from 200VP/mL urine to at least 8 x 10^9 VP/mL urine or plasma/serum.

Ordering information

Description	Cat #	Size
Urine HSV-2 PCR Detection Kit	32400	24 rxns
Plasma/Serum HSV-2 PCR Detection Kit	32500	24 rxns
HSV-2 PCR Kit Dx	Dx32420	48 rxns
HSV-2 Primer Sets and Controls	32410	100 rxns
HSV-2 Real-Time PCR	TM32400	48 rxns
HSV-2 Real-Time PCR	SG32400	48 rxns

HSV-1&2 PCR Detection Kits

Cat. # 31700, 31800

A ready-to-use system for the isolation, detection and differentiation of HSV-1 and HSV-2 from urine or plasma/serum using end-point PCR detection

Norgen's HSV-1&2 PCR Detection Kit is a ready-to-use system for the isolation, detection and differentiation of HSV-1 and HSV-2. First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from urine or plasma/serum samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains HSV-1&2 Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The HSV-1&2 Master Mix provided with the kit contains reagents and enzymes for the specific amplification of a 275 bp region of HSV-1 viral DNA and 350 bp region of HSV-2 viral DNA. In addition, Norgen's HSV-1&2 PCR Detection Kit contains a second Master Mix, the Control 2x PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control or Isolation Control. The kit is designed to allow for the testing of 24 samples. The HSV-1&2 PCR Primer Set and Controls are also available separately for end-point PCR detection.

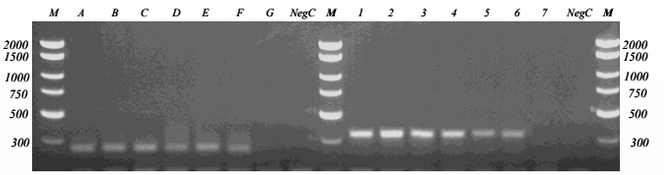

Figure 1. Detection of HSV-1 & 2 using the HSV-1 & 2 PCR Detection Kit. A representative 1X TAE, 1.7% agarose gel showing the amplification of HSV-1 and HSV-2 at different concentrations. The size of the HSV-1 target amplicon corresponds to the 275 bp band represented by the provided DNA Marker (M).The size of the HSV-2 target amplicon corresponds to the 350 bp band represented by the provided DNA Marker (M). Lanes A-G represents samples spiked with different HSV-1 concentrations. Lanes 1-7 represents samples spiked with different HSV-2 concentrations.

Features and Benefits

- Rapid isolation of high quality viral DNA from urine or plasma/serum
- Contains two ready-to-use 2X PCR Mastermixes
- Detect and differentiate between HSV-1 and HSV-2
- High sensitivity and specificity
- Multiplex PCR with an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range of Norgen's HSV-1&2 PCR Detection Kits was determined by analyzing a dilution series of HSV-1 and HSV-2 quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} VP/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's Plasma/Serum HSV-1&2 PCR Detection Kit on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's HSV-1&2 PCR Detection Kits has been determined to cover concentrations from 0.2 VP/µl to at least 8 x 10^6 VP/µl
- Under the conditions of Norgen's DNA Isolation procedure, Norgen's HSV-1&2 PCR Detection Kits covers a linear range from 200VP/mL to at least 8 x 10^9 VP/mL urine or plasma/serum

Ordering information

Description	Cat #	Size
Urine HSV-1&2 PCR Detection Kit	31700	24 rxns
Plasma/Serum HSV-1&2 PCR Detection Kit	31800	24 rxns
HSV-1&2 PCR Kit Dx	Dx31720	48 rxns
HSV-1&2 Primer Sets and Controls	31710	100 rxns
HSV-1&2 Real-Time PCR	TM31700	48 rxns
HSV-1&2 Real-Time PCR	SG31700	48 rxns

For research use only and NOT intended for in vitro diagnostics

CMV PCR Detection Kits

Cat. # 36300, 36400

A ready-to-use kit for the isolation and detection of CMV in urine or plasma/serum using end-point PCR

Norgen's CMV PCR Detection Kits are a ready-to-use kit for the isolation and detection of cytomegalovirus (CMV) from urine. First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from the urine or plasma/serum samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains CMV Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The CMV Master Mix contains reagents and enzymes for the specific amplification of a 306 bp region of CMV. In addition, Norgen's CMV PCR Detection Kits contain a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the PCR Control (PCRC) or Isolation Control (IsoC). The kit is designed to allow for the testing of 24 samples. The CMV PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality DNA from urine or plasma/serum
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) of Norgen's CMV PCR Detection Kits was determined by analyzing a dilution series of CMV quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} IU/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's CMV PCR Detection Kits on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's CMV PCR Detection Kits has been determined to cover concentrations from 7 VP/µl to at least 8 x 106 VP/µl
- Under the conditions of Norgen's DNA Isolation procedure, Norgen's CMV PCR detection Kits cover a linear range from 700 VP/mL to at least 8 x 10^9 VP/mL urine or plasma/serum.

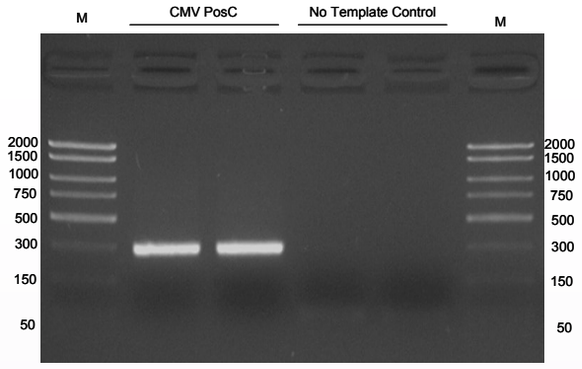

Figure 1. Detection of CMV using the CMV PCR Detection Kit. A representative 1X TAE, 1.7% agarose gel showing the amplification of CMV. The size of the CMV target amplicon corresponds to the 291 bp band represented by the provided DNA Marker (M).

Ordering information

Description	Cat #	Size
Urine CMV PCR Detection Kit	36300	24 rxns
Plasma/Serum CMV PCR Detection Kit	36400	24 rxns
CMV Primer Sets and Controls	36310	100 rxns
CMV Real-Time PCR	TM36300	48 rxns
CMV Real-Time PCR	SG36300	48 rxns

VZV PCR Detection Kits

Cat. # 36700, 36800

A ready-to-use system for the isolation and detection of VZV from urine or plasma/serum using end-point PCR

Norgen's VZV PCR Detection Kits are a ready-to-use system for the isolation and detection of Varicella zoster virus (VZV) from urine. First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from the urine or plasma/serum samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains VZV Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.
The VZV Master Mix contains reagents and enzymes for the specific amplification of a 306 bp region of VZV. In addition, Norgen's VZV PCR Detection Kits contain a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control (PCRC) or Isolation Control (IsoC). The kit is designed to allow for the testing of 24 samples. The VZV PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality DNA from urine or plasma/serum
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) of Norgen's VZV PCR Detection Kits was determined by analyzing a dilution series of VZV quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} IU/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's VZV PCR Detection Kits on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's VZV PCR Detection Kits has been determined to cover concentrations from 2 VP/µl to at least 8 x 10^6 VP/µl
- Under the conditions of Norgen's Urine DNA Isolation procedure, Norgen's VZV PCR Detection Kits covers a linear range from 200VP/mL to at least 8 x 10^9 VP/mL urine or plasma/serum.

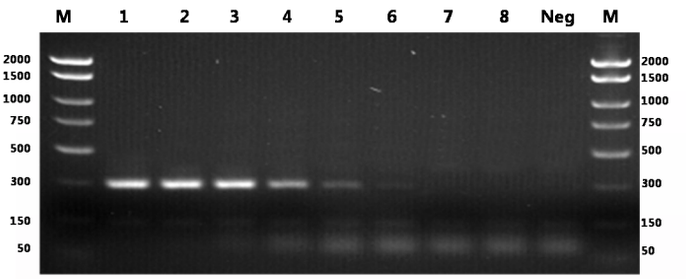

Figure 1. Detection of VZV using the VZV PCR Detection Kit. A representative 1X TAE, 2% agarose gel showing the amplification of VZV at different concentrations. The size of the VZV target amplicon corresponds to the 306 bp band represented by the provided DNA Marker (M). Lanes 1-8 represents different VZV concentrations.

Ordering information

Description	Cat #	Size
Urine VZV PCR Detection Kit	36700	24 rxns
Plasma/Serum VZV PCR Detection Kit	36800	24 rxns
VZV PCR Kit Dx	Dx36720	48 rxns
VZV Primer Sets and Controls	36710	100 rxns
VZV Real-Time PCR	TM36700	48 rxns
VZV Real-Time PCR	SG36700	48 rxns

BKV PCR Detection Kits

Cat. # 36500, 36800

A ready-to-use system for the isolation and detection of BKV from urine or plasma/serum using end-point PCR

Norgen's BKV PCR Detection Kits are a ready-to-use system for the isolation and detection of BK virus from urine. First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from the urine or plasma/serum samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains BKV Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The BKV Master Mix contains reagents and enzymes for the specific amplification of a 377 bp region of BKV. In addition, Norgen's BKV PCR Detection Kits contain a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control or Isolation Control. The kit is designed to allow for the testing of 24 samples. The BKV PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality DNA from urine or plasma/serum
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) of Norgen's BKV PCR Detection Kits was determined by analyzing a dilution series of BKV quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} IU/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's BKV PCR Detection Kits on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's BKV PCR Detection Kits has been determined to cover concentrations from 2 VP/µl to at least 8 x 10^6 VP/µl
- Under the conditions of Norgen's Urine DNA Isolation procedure, Norgen's BKV PCR detection Kit covers a linear range from 200 VP/mL to at least 8 x 10^9 VP/mL urine or plasma/serum.

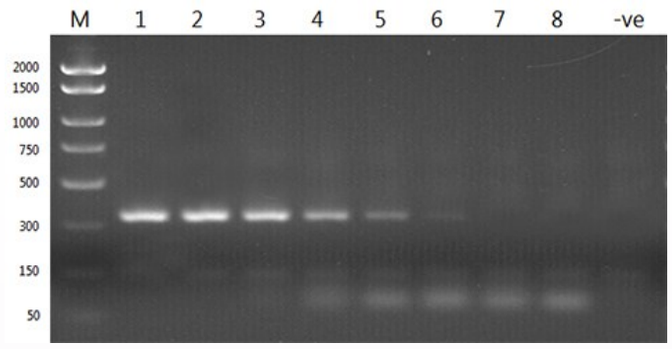

Figure 1. A representative 1X TAE, 1.7% agarose gel showing the amplification of BKV at different concentrations. The size of the BKV target amplicon corresponds to the 377 bp band represented by the provided DNA Marker (M). Lanes 1-8 represents samples spiked with different BKV concentrations.

Ordering information

Description	Cat #	Size
Urine BKV PCR Detection Kit	36500	24 rxns
Plasma/Serum BKV PCR Detection Kit	36800	24 rxns
BKV PCR Kit Dx	Dx36520	48 rxns
BKV Primer Sets and Controls	36510	100 rxns
BKV Real-Time PCR	TM36500	48 rxns
BKV Real-Time PCR	SG36500	48 rxns

HCV PCR Detection Kits

Cat. # 37600, 37700

A ready-to-use system for the isolation and detection of HCV from urine or plasma/serum using end-point RT-PCR

Norgen's HCV RT-PCR Detection Kits are a ready-to-use system for the isolation and detection of Hepatitis C virus from urine or plasma/serum. First the kit contains components for the rapid isolation of total RNA, including viral RNA, from the urine or plasma/serum samples using spin-column chromatography based on Norgen's proprietary resin. Second the kit contains HCV RT-PCR Master Mix and controls for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrohporesis. Alternatively, detection can be performed by real-time PCR using melt curves.

The HCV Master Mix contains reagents and enzymes for the specific amplification of a 380 bp region of HCV. In addition, Norgen's HCV RT-PCR Detection Kits contain a second Master Mis, the Control 2x PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control and Isolation Control. The kit is designed to allow for the testing of 24 samples. the HCV RT-PCR Primer Set and Controls are also available separately for end-point RT-PCR detection.

Features and Benefits

- Rapid isolation of high quality RNA from urine or plasma/serum
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range of Norgen's HCV RT-PCR Detection Kit was determined by analyzing a dilution series of HCV quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} IU/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's HCV RT-PCR Detection Kit on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's Urine-Based HCV RT-PCR Detection Kit has been determined to cover concentrations from 2 VP/µl to at least 8 x 10^6 VP/µl
- Under the conditions of Norgen's RNA Isolation procedure, Norgen's HCV RT-PCR Detection Kits covers a linear range from 200 VP/mL urine to at least 8 x 10^9 VP/mL urine.

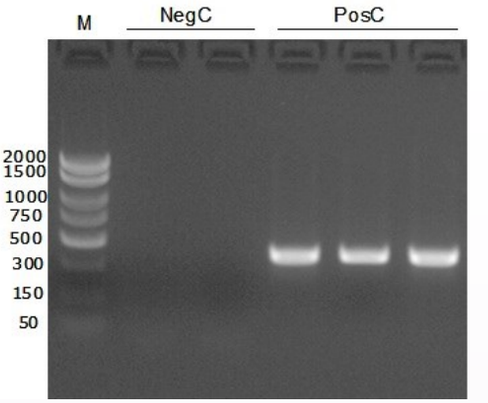

Figure 1. Detection of HCV using the Urine HCV RT-PCR Detection Kit. A representative 1X TAE, 1.5% agarose gel showing the amplification of HCV at different concentrations (Target). The size of the HCV target amplicon corresponds to the 380 bp band represented by the provided DNA Marker (M). PosC lanes shows the positive HCV amplicon whereas NegC lanes shows the negative control.

Ordering information

Description	Cat #	Size
Urine HCV PCR Detection Kit	37600	24 rxns
Plasma/Serum HCV PCR Detection Kit	37700	24 rxns
HCV PCR Kit Dx	Dx37600	48 rxns
HCV Primer Sets and Controls	37610	100 rxns
HCV Real-Time PCR	TM37600	48 rxns
HCV Real-Time PCR	SG37600	48 rxns

JCV PCR Detection Kits

Cat. # 37200, 37300

A ready-to-use system for the isolation and detection of JCV from urine or plasma/serum using end-point PCR

The JC virus (JCV) is a type of human polyomavirus and belongs to the family *Papovaviridae*. Norgen's JCV PCR Detection Kits are a ready-to-use system for the isolation and detection of JC virus. First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from the urine or plasma/serum samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains JCV Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.
The JCV Master Mix contains reagents and enzymes for the specific amplification of a 255 bp region of the JC virus. In addition, Norgen's JCV PCR Detection Kits contain a second Master Mix, the Control 2x PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control or Isolation Control. The kit is designed to allow for the testing of 24 samples. The JCV PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality DNA from urine
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) of Norgen's JCV PCR Detection Kits was determined by analyzing a dilution series of JCV quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} IU/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's JCV PCR Detection Kits on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's Urine-Based JCV PCR Detection Kit has been determined to cover concentrations from 5 VP/µl to at least 8 x 10^6 VP/µl
- Under the conditions of Norgen's DNA Isolation procedure, Norgen's JCV PCR detection Kit covers a linear range from 500 VP/mL to at least 8 x 10^9 VP/mL urine or plasma/serum.

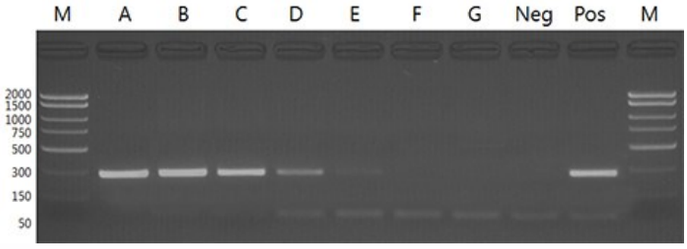

Figure 1. A representative 1X TAE 2% agarose gel showing the amplification of JCV at different concentrations. The size of the JCV target amplicon corresponds to the 255 bp band represented by the provided DNA Marker (M). No amplification of the target is observed in with the Negative Control.

Ordering information

Description	Cat #	Size
Urine JCV PCR Detection Kit	37200	24 rxns
Plasma/Serum JCV PCR Detection Kit	37300	24 rxns
JCV PCR Kit Dx	Dx37220	48 rxns
JCV Primer Sets and Controls	37210	100 rxns
JCV Real-Time PCR	TM37200	48 rxns
JCV Real-Time PCR	SG37200	48 rxns

BKV/JCV PCR Detection Kits

Cat. # 39400, 39300

A ready-to-use system for the isolation and detection of BKV and/or JCV from urine or plasma/ serum using end-point PCR

Norgen's BKV/JCV PCR Detection Kits are a ready-to-use system for the isolation and detection of BK virus and/or JC virus. First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from the urine or plasma/serum samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains BKV/JCV Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The BKV/JCV Master Mix contains reagents and enzymes for the specific amplification of a 377 bp region of BKV and/or a 255 bp region of JCV. In addition, Norgen's BKV/ JCV PCR Detection Kits contain a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control or Isolation Control. The kit is designed to allow for the testing of 24 samples. The BKV/JCV PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality DNA from urine or plasma/serum
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) of Norgen's BKV/JCV PCR Detection Kits was determined by analyzing a dilution series of BKV and JCV quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} IU/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's BKV/JCV PCR Detection Kits on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's BKV/JCV PCR Detection Kits has been determined to cover concentrations from 1.5 VP/µl to at least 8 x 10^6 VP/µl for both BKV and JCV
- Under the conditions of Norgen's DNA Isolation procedure, Norgen's BKV/JCV PCR Detection Kits covers a linear range from 150VP/mL urine to at least 8 x 10^9 VP/mL urine for both BKV and JCV.

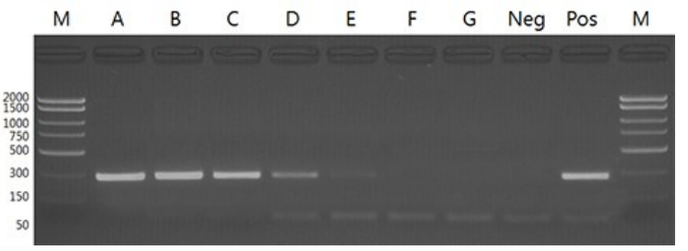

Figure 1. A representative 1X TAE 2% agarose gel showing the amplification of JCV at different concentrations. The size of the JCV target amplicon corresponds to the 255 bp band represented by the provided DNA Marker (M). No amplification of the target is observed in with the Negative Control.

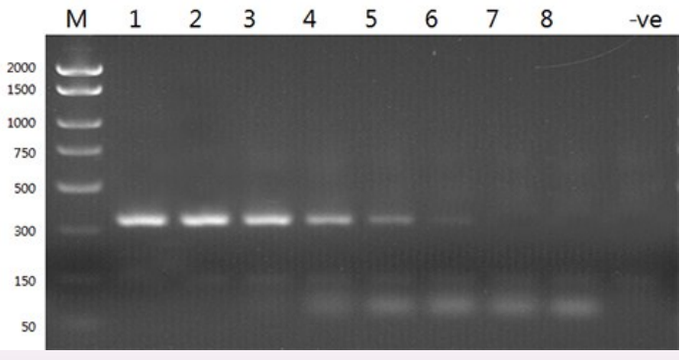

Figure 2. A representative 1X TAE, 1.7% agarose gel showing the amplification of BKV at different concentrations. The size of the BKV target amplicon corresponds to the 377 bp band represented by the provided DNA Marker (M). Lanes 1-8 represents samples spiked with different BKV concentrations

Ordering information

Description	Cat #	Size
Urine BKV/JCV Detection Kit	39400	24 rxns
Plasma/Serum BKV/JCV PCR Detection Kit	39300	24 rxns
BKV/JCV PCR Kit Dx	Dx39320	48 rxns
BKV Primer Sets and Controls	36510	100 rxns
JCV Primer Sets and Controls	37210	100 rxns

Parvovirus B19 PCR Detection Kits

Cat. # 39600, 39500

A ready-to-use kit for the isolation and detection of Parvovirus B19 in urine using end-point PCR

Norgen's Parvovirus B19 PCR Detection Kits are a ready-to-use kit for the isolation and detection of Parvovirus B19. First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from the urine or plasma/serum samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains Parvovirus B19 Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.

The Parvovirus B19 Master Mix contains reagents and enzymes for the specific amplification of a 322 bp region of Parvovirus B19. In addition, Norgen's Parvovirus B19 PCR Detection Kits contain a second Master Mix, the Control 2x PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control or Isolation Control. The kit is designed to allow for the testing of 24 samples. The Parvovirus B19 PCR Primer Set and Controls are also available separately for end-point PCR detection.

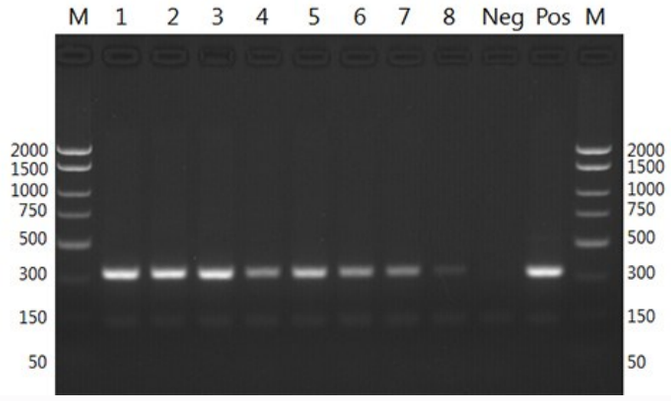

Figure 1. A representative 1X TAE, 2% agarose gel showing the amplification of Parvovirus B19. The size of the Parvovirus B19 target amplicon corresponds to the 321 bp band represented by the provided DNA Marker (M).

Features and Benefits

- Rapid isolation of high quality DNA from urine or plasma/serum
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) of Norgen's Parvovirus B19 PCR Detection Kits was determined by analyzing a dilution series of Parvovirus B19 quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1}IU/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's Parvovirus B19 PCR Detection Kit on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's Parvovirus B19 PCR Detection Kit has been determined to cover concentrations from 10 VP/µl to at least 8 x 10^6 VP/µl
- Under the conditions of Norgen's DNA Isolation procedure, Norgen's Parvovirus B19 PCR Detection Kits covers a linear range from 1000 VP/mL to at least 8 x 10^9 VP/mL urine or plasma/serum.

Ordering information

Description	Cat #	Size
Urine Parvovirus B19 PCR Detection Kit	39600	24 rxns
Plasma/Serum Parvovirus B19 PCR Detection Kit	39500	24 rxns
Parvovirus B19 PCR Kit Dx	Dx39520	48 rxns
Parvovirus B19 Primer Sets and Controls	39610	100 rxns
Parvovirus B19 Real-Time PCR	TM39600	48 rxns
Parvovirus B19 Real-Time PCR	SG39600	48 rxns

Enterovirus RT-PCR Detection Kits

Cat. # 39800, 39700

A ready-to-use system for the isolation and detection of 32 enterovirus serotypes from urine using end-point RT-PCR

Norgen's Enterovirus RT-PCR Detection Kit is a ready-to-use system for the isolation and detection of enterovirus RNA from urine or plasma/serum. First the kit contains components for the rapid isolation of total RNA, including viral RNA, from the urine or plasma/serum samples using spin-column chromatography based on Norgen's proprietary resin. Second the kit contains Enterovirus RT-PCR Master Mix and controls for PCR amplification, as well as a Control RT-PCR Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrohporesis. Alternatively, detection can be performed by real-time PCR using melt curves.

The Enterovirus Master Mix contains reagents and enzymes for the specific amplification of a 311 bp region of the Enterovirus genome that is homolgous in 32 different serotypes. In addition, Norgen's Enterovirus RT-PCR Detection Kit contains a second Master Mix, the Control RT-PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation with the use of the provided PCR Control (PCRC) or Isolation Control (IsoC). The kit is designed to allow for the testing of 24 samples. The Enterovirus RT-PCR Primer Set and Controls are also available separately for end-point RT-PCR detection.

Features and Benefits

- Rapid isolation of high quality viral RNA from urine or plasma/serum
- Contains two ready-to-use 2X RT-PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range of Norgen's Enterovirus RT-PCR Detection Kit was determined by analyzing a dilution series of Enterovirus quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} IU/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's Enterovirus RT-PCR Detection Kit on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's Enterovirus RT-PCR Detection Kit has been determined to cover concentrations from 2 VP/µl to at least 8 x 10^6 VP/µl
- Under the conditions of Norgen's RNA Isolation procedure, Norgen's Enterovirus RT-PCR detection Kit covers a linear range from 200 VP/mL to at least 8 x 10^9 VP/mL urine or plasma/serum.

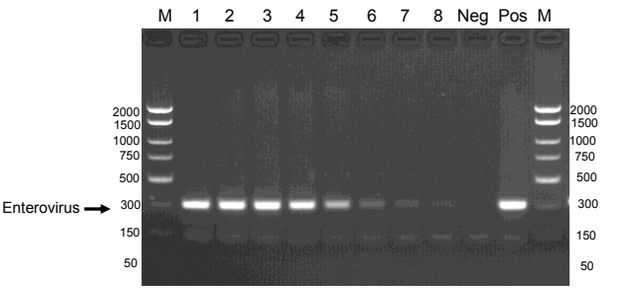

Figure 1. Detection of Enterovirus using the Enterovirus RT-PCR Detection Kit. A representative 1X TAE, 1.7% agarose gel showing the amplification of Enterovirus at different concentrations. The size of the Enterovirus target amplicon corresponds to the 311 bp band represented by the provided DNA Marker (M). Lanes 1-8 represents samples spiked with different Enterovirus concentrations isolated from 10 mL urine samples (interpreted as positive results).

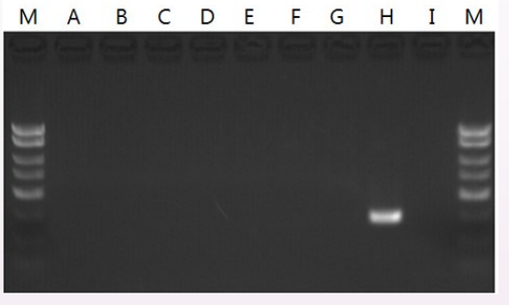

Figure 2. A representative 1X TAE, 1.7% agarose gel showing the specificity of the primers used to detect Enterovirus. The size of the Enterovirus target amplicon corresponds to the 311 bp band represented by the provided DNA Marker (M). The specificity of Norgens Enterovirus PCR Detection Kit is first and foremost ensured by the selection of the Chlamydia specific primers, as well as the selection of stringent reaction conditions. The primers were checked for possible homologies in GenBank published sequences by sequence comparison analyses. Furthermore, the specificity of the Enterovirus specific primers were tested against other known pathogens. Lane A represents the gDNA as well as the cryptic plasmid from *Chlamydia trachomatis*, Lane B represents the gDNA from *Neisseria gonorrhoea,* Lane C represents the viral HSV-1 DNA, Lane D represents the viral HSV-2 DNA, Lane E represents the High Risk HPV viral DNA (HPV 16), Lane F represents the Low Risk HPV viral DNA (HPV 6), Lane G represents HIV, Lane H represents Enterovirus and Lane I represents HCV.

Ordering information

Description	Cat #	Size
Urine Enterovirus RT-PCR Detection Kit	39800	24 rxns
Plasma/Serum Enterovirus RT-PCR Detection Kit	39700	24 rxns
Enterovirus RT-PCR Kit Dx	Dx39720	48 rxns
Enterovirus Primer Sets and Controls	39710	100 rxns
Enterovirus Real-Time PCR	TM37600	48 rxns
Enterovirus Real-Time PCR	SG37600	48 rxns

EBV PCR Detection Kits

Cat. # 41100, 41000

A ready-to-use kit for the isolation and detection of EBV in urine using end-point PCR

Norgen's EBV PCR Detection Kit is a ready-to-use kit for the isolation and detection of Epstein-Barr Virus. First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from the urine or plasma/serum samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains EBV Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for the amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.
The EBV Master Mix contains reagents and enzymes for the specific amplification of a 314 bp region of EBV. In addition, Norgen's EBV PCR Detection Kit contains a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the PCR Control (PCRC) or Isolation Control (IsoC). The kit is designed to allow for the testing of 24 samples. The EBV PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality DNA from urine or plasma/serum
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) of Norgen's EBV PCR Detection Kit was determined by analyzing a dilution series of EBV quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} IU/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's EBV PCR Detection Kit on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's EBV PCR Detection Kit has been determined to cover concentrations from 10 VP/µl to at least 8 x 10^6 VP/µl
- Under the conditions of Norgen's DNA Isolation procedure, Norgen's EBV PCR Detection Kit covers a linear range from 1000VP/mL to at least 8 x 10^9 VP/mL urine or plasma/serum

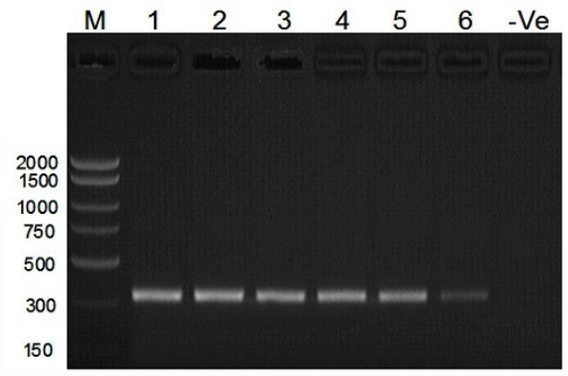

Figure 1. Detection of EBV. A representative 1X TAE, 1.7% agarose gel showing the amplification of EBV at different concentrations (Target). The size of the EBV target amplicon corresponds to the 314 bp band represented by the provided DNA Marker (M). Lanes 1-6 represents samples spiked with different EBV concentrations.

Ordering information

Description	Cat #	Size
Urine EBV PCR Detection Kit	41100	24 rxns
Plasma/Serum EBV PCR Detection Kit	41000	24 rxns
EBV PCR Kit Dx	Dx41020	48 rxns
EBV Primer Sets and Controls	41010	100 rxns
EBV Real-Time PCR	TM41000	48 rxns
EBV Real-Time PCR	SG41000	48 rxns

HPV 6/16 PCR Detection Kits

Cat. # 42200, 42000

A ready-to-use system for the isolation, detection and differentiation of high-risk HPV 16 and low-risk HPV 6 using end-point PCR

Norgen's HPV 6/16 PCR Detection Kit is a ready-to-use system for the isolation, detection and differentiation of high-risk HPV 16 and low-risk HPV 6. First, the kit contains components for the rapid isolation of total DNA, including viral DNA, from the urine or plasma/serum samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains HPV 6/16 Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.
The HPV 6/16 Master Mix contains reagents and enzymes for the specific amplification of either a 391 bp region of high-risk HPV 16 and/or a 280 bp region of low-risk HPV 6. In addition, Norgen's HPV 6/16 PCR Detection Kit contains a second Master Mix, the Control 2x PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control or Isolation Control. The kit is designed to allow for the testing of 24 samples. The HPV 6/16 PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality viral DNA from urine or plasma/serum
- Contains two ready-to-use 2X PCR Mastermixes
- Detect and differentiate between HPV 6 and HPV 16
- High sensitivity and specificity
- Multiplex PCR with an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) was determined by analyzing a dilution series of HPV quantitative standard ranging from 8.46 x 10^9 VP/µl to 1 x 10^{-1} IU/µl.
- Each dilution has been tested in replicates (n = 4) on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's HPV 6/16 PCR Detection Kit has been determined to cover concentrations from 0.2 VP/µl to at least 8 x 10^6 VP/µl.
- Under the conditions of Norgen's DNA Isolation procedure, Norgen's HPV 6/16 PCR detection Kit covers a linear range from 450 VP/mL to at least 8 x 10^9 VP/mL urine or plasma/serum for the high-risk HPV 16 and covers a linear range from 250 VP/mL to at least 8 x 10^9 VP/mL urine or plasma/serum for the Low-risk HPV 6.

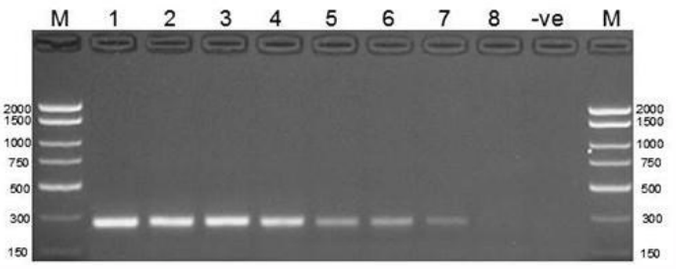

Figure 1. Detection of HPV 6 using the HPV 6/16 PCR Detection Kit. A representative 1X TAE 2% agarose gel showing the amplification of HPV at different concentrations. The size of the HPV target amplicon corresponds to the 280 bp band represented by the provided DNA Marker (M). No amplification of the target is observed in with the Negative Control.

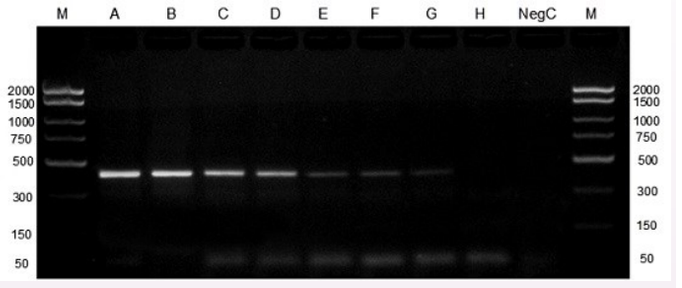

Figure 2. Detection of HPV 16 using the HPV 6/16 PCR Detection Kit. A representative 1X TAE, 1.7% agarose gel showing the amplification of HPV (High Risk) at different concentrations (Target). The size of the HPV (High Risk) target amplicon corresponds to the 391 bp band represented by the provided DNA Marker (M). Lanes A-H represents samples spiked with different HPV concentrations isolated from 0.5 mL Plasma (interpreted as positive results). The HPV spiked in plasma samples is a cloned PCR product.

Ordering information

Description	Cat #	Size
Urine HPV 6/16 PCR Detection Kit	42200	24 rxns
Plasma/Serum HPV 6/16 PCR Detection Kit	42000	24 rxns
HPV 6/16 PCR Kit Dx	Dx42020	48 rxns

Mycobacterium tuberculosis PCR Detection Kits

Cat. # 41200, 42100

A ready-to-use kit for the isolation and detection of M. tuberculosis in urine or sputum using end-point PCR

Norgen's *Mycobacterium tuberculosis* PCR Detection Kit is a ready-to-use kit for the isolation and detection of *M. tuberculosis*. First, the kit contains components for the rapid isolation of total DNA, including bacterial DNA, from the urine or sputum samples using spin-column chromatography based on Norgen's proprietary resin. Second, the kit contains *M. tuberculosis* Master Mix and controls to allow for PCR amplification, as well as a Control Master Mix to allow for amplification of both an Isolation Control and a PCR Control. The amplified PCR products are then detected using agarose gel electrophoresis. Alternatively, detection can be performed based on real-time PCR using melt curves.
The *M. tuberculosis* Master Mix contains reagents and enzymes for the specific amplification of a 307 bp region of *Mycobacterium tuberculosis*. In addition, Norgen's *M. tuberculosis* PCR Detection Kit contains a second Master Mix, the Control 2X PCR Master Mix, which can be used to identify possible PCR inhibition and/or inadequate isolation via a separate PCR reaction with the use of the provided PCR Control (PCRC) or Isolation Control (IsoC). The kit is designed to allow for the testing of 24 samples. The *M. tuberculosis* PCR Primer Set and Controls are also available separately for end-point PCR detection.

Features and Benefits

- Rapid isolation of high quality DNA from urine or sputum
- Contains two ready-to-use 2X PCR Master Mixes
- High sensitivity and specificity
- Includes an isolation control and a PCR control
- Primer set and controls also available separately

Linear Range

- The linear range (analytical measurement) of Norgen's *Mycobacterium tuberculosis* PCR Detection Kit was determined by analyzing a dilution series of *Mycobacterium tuberculosis* quantitative standard ranging from 8.46 x 10^9 copies/µl to 1 x 10^{-1} copies/µl.
- Each dilution has been tested in replicates (n = 4) using Norgen's *Mycobacterium tuberculosis* PCR Detection Kit on 1X TAE, 1.7% Agarose gels.
- The linear range of Norgen's *Mycobacterium tuberculosis* PCR Detection Kit has been determined to cover concentrations from 2 copies/µl to at least 8 x 10^6 copies/µl
- Under the conditions of Norgen's DNA Isolation procedure, Norgen's *Mycobacterium tuberculosis* PCR detection Kit covers a linear range from 1000 copies/mL urine to at least 8 x 10^9 copies/mL urine.

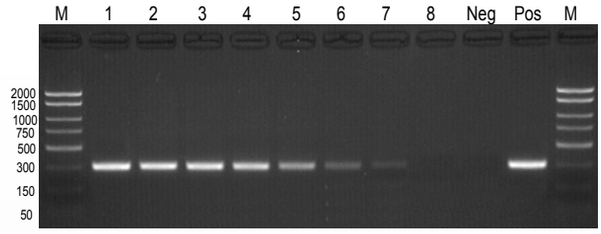

Figure 1. Detection of *Mycobacterium tuberculosis*. A representative 1X TAE, 1.7% agarose gel showing the amplification of *Mycobacterium tuberculosis* at different concentrations. The size of the *Mycobacterium tuberculosis* target amplicon corresponds to the 319 bp band represented by the provided DNA Marker (M). Lanes 1-8 represents samples spiked with different *Mycobacterium tuberculosis* concentrations isolated from 1 mL sputum samples (interpreted as positive results). The *Mycobacterium tuberculosis* spiked in sputum samples is purified plasmid DNA.

Ordering information

Description	Cat #	Size
Urine Mycobacterium tuberculosis PCR Detection Kit	41200	24 rxns
Sputum Mycobacterium tuberculosis PCR Detection Kit	42100	24 rxns
Mycobacterium tuberculosis PCR Kit Dx	Dx41220	48 rxns
Mycobacterium tuberculosis Primer Sets and Controls	41210	100 rxns
Mycobacterium tuberculosis Real-Time PCR	TM41200	48 rxns
Mycobacterium tuberculosis Real-Time PCR	SG42100	48 rxns

Commitment to Quality

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