

VIRPLEX

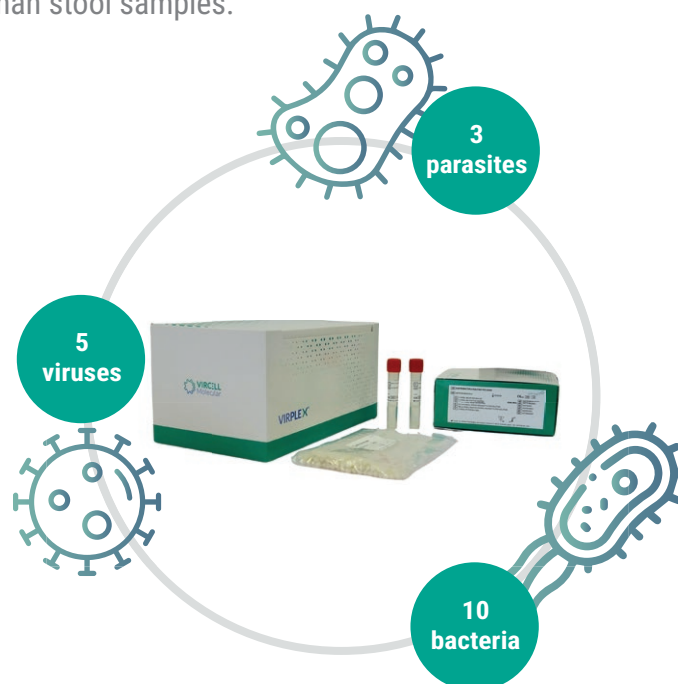
Gastrointestinal Solutions

Accurate and reliable real-time PCR kits for gastrointestinal pathogens

VIRPLEX REAL-TIME GASTROINTESTINAL PCR KITS

Real-time PCR multiplex kits for the detection of nucleic acids from bacteria, viruses and parasites that cause gastrointestinal infections in human stool samples.

- Wide coverage of pathogens that can cause gastrointestinal infections
- Simple extraction process using included swabs and sample dilution tubes to avoid PCR inhibitors.
- Endogenous control for monitoring the carry-over of amplification inhibitors, sample DNA/RNA integrity and the correct amplification set-up.
- Lyophilized master mix and positive control to ensure stability and reduce transportation costs.
- Fully automated workflow using MagXtract®, CFX® and Vircom Molecular in less than 3 hours. Up to 18 targets per sample.



Analytes

GASTROVIRUS REALTIME PCR

- Norovirus (genogroups 1 and 2 in the same channel)
- Rotavirus
- Adenovirus (40/41)
- Sapovirus
- Astrovirus

GASTROPARASITES 1 REALTIME PCR

- *Entamoeba histolytica*
- *Giardia lamblia*
- *Cryptosporidium* spp

GASTROBACTERIA REALTIME PCR

- *Aeromonas* spp
- *Campylobacter* spp
- *Clostridium difficile* toxin B
- *E. coli* EIEC/Shigella spp
- *E. coli* ETEC
- *E. coli* STEC
- *Salmonella* spp
- *Vibrio* spp
- *Yersinia enterocolitica*
- *Campylobacter jejuni/ coli*

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WHY IS PCR BETTER FOR DIAGNOSE GI INFECTIONS?

Gastrointestinal (GI) infections caused by viruses, bacteria, and parasites are a major global health concern, responsible for millions of cases of gastroenteritis each year. Diarrheal diseases are one of the leading causes of mortality worldwide, particularly affecting children under the age of five in developing countries, where poor sanitation significantly increases the risk of infection. In developed nations, outbreaks are more commonly linked to contaminated food, water, or healthcare-associated infections.

The pathogens responsible for gastroenteritis cause similar symptoms but **require different treatment approaches, so accurate diagnosis is key** to make informed therapeutic decisions, avoid unnecessary antibiotic use, and implement appropriate infection control measures.

Traditional diagnostic methods, such as stool cultures and microscopy, have been the gold standard for detecting GI pathogens. However, these methods come with limitations, such as long turnaround times and lack of sensitivity. Modern molecular diagnostic techniques, such as **real-time PCR**, have been proven to be **more efficient than conventional methods**, offering **high sensitivity and specificity** while **reducing turnaround time**, enabling faster and more precise treatment decisions.

Kit performance

GASTROVIRUS REALTIME PCR

	Sensitivity	Specificity	No. of samples
Norovirus	96%	100%	108
Rotavirus	97%	100%	112
Adenovirus	96%	100%	103
Sapovirus	98%	100%	103
Astrovirus	98%	100%	107

GASTROPARASITES 1 REALTIME PCR

	Sensitivity	Specificity	No. of samples
<i>Entamoeba histolytica</i>	98%	100%	108
<i>Giardia lamblia/intestinalis</i>	98%	100%	111
<i>Cryptosporidium</i> spp.	98%	100%	109

GASTROBACTERIA REALTIME PCR

	Sensitivity	Specificity	No. of samples
<i>Aeromonas</i> spp	96%	100%	105
<i>Campylobacter</i> spp	100%	100%	101
<i>Clostridium difficile</i> toxin B	96%	100%	105
<i>E. coli</i> EIEC/Shigella spp	96%	100%	100
<i>E. coli</i> ETEC	98%	100%	101
<i>E. coli</i> STEC	96%	100%	101
<i>Salmonella</i> spp	96%	100%	107
<i>Vibrio</i> spp	98%	100%	102
<i>Yersinia enterocolitica</i>	96%	100%	103

MORE BENEFITS OF MOLECULAR DIAGNOSTICS



FOR BACTERIAL INFECTIONS:

- Can identify **non-viable organisms** that traditional cultures may miss.
- Detects species **not routinely included in stool cultures** (e.g., pathogenic *E. coli*, *Campylobacter*, *Vibrio*)
- **Reduces indirect hospital costs** by improving patient management.



FOR VIRAL INFECTIONS:

- Improved detection of viruses like **adenovirus, norovirus and astrovirus** and in **low viral load cases**.
- **Sapovirus detection**, which is often absent in antigen-based tests.
- Can be **cost-effective** compared to antigen tests.



FOR PARASITIC INFECTIONS:

- Objective technique that **does not require highly specialized personnel**.
- **Greater specificity** (e.g., differentiates *Entamoeba histolytica* from non-pathogenic *E. dispar*) and improved sensitivity for example in the detection of *Cryptosporidium*.
- **Improved detection** over other molecular assays due to RNA target amplification.
- **Single stool sample** is sufficient for diagnosis.

INFORMATION AND RELATED PRODUCTS

Description	Reference	Class	Content
GASTROVIRUS REALTIME PCR KIT	RTPCR028-LP	CE ₀₁₂₃ IVDR	48 tests
GASTROPARASITES 1 REALTIME PCR KIT	RTPCR024-LP	CE ₀₁₂₃ IVDR	48 tests
GASTROBACTERIA REALTIME PCR KIT	RTPCR029-LPD	CE ₀₁₂₃ IVDR	48 tests
AMPLIRUN® TOTAL GASTROINTESTINAL BACTERIAL PANEL (STOOL)	MBTC021	CE	10 vials

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