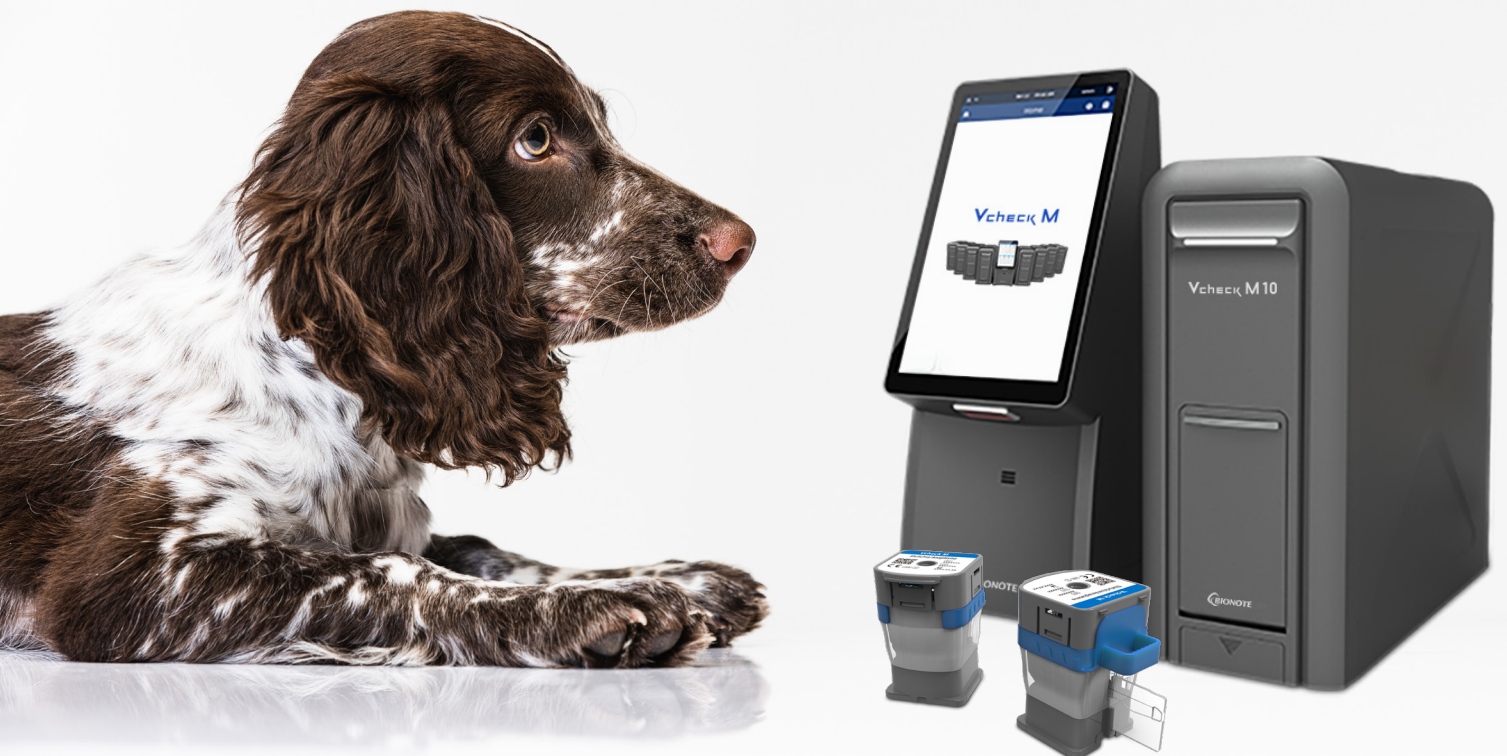


Vcheck M Canine Diarrhea 8 Panel

Sample-In, Result-Out:
One-step Identification of Diarrhea-causing Pathogens



✓ **MULTIPLEX DETECTION**

Detecting 8 common causes of diarrhea at once

✓ **ONE-STEP DETECTION**

Integration of extraction and amplification process

✓ **COMPREHENSIVE DETECTION**

Ready-to-use stool pretreatment kit included




Vcheck M Canine Diarrhea 8 Panel

Importance of Diarrhea Testing

Diarrhea is a frequent issue in veterinary clinics, ranging from mild to severe symptoms. It can stem from bacterial, viral, or protozoal infection, or a combination thereof, often presenting similar clinical signs. This similarity complicates definitive diagnosis and the application of effective treatments. **Therefore, precise differential diagnosis is crucial to pinpoint the causative agent and ensure tailored treatment strategies.**

Major Pathogens Behind Canine Diarrhea¹

Supportive care is primarily provided to patients with diarrhea, encompassing fluid therapy and antiemetic agents. Additionally, differentiating between bacterial and protozoal infections is critical. Certain antibiotics may effectively target specific strains, while others may face resistance. Moreover, treatment durations vary depending on the pathogen. Therefore, accurately identifying the causative organism is essential.

Type	Pathogen	Clinical Signs	Diarrhea Cause Likelihood	Zoonotic	Treatment
 Virus	Canine parvovirus 2	<ul style="list-style-type: none"> Diarrhea Other signs : Anorexia, vomiting, dehydration, fever, leukopenia 	Likely cause	X	Symptomatic therapy (Fluid therapy, antiemetics, antimicrobial) * In severe cases, plasma transfusion
	Canine coronavirus	<ul style="list-style-type: none"> Sudden onset of diarrhea Clinical signs typically mild 	Possible cause/Carrier	X	
	Canine distempervirus	<ul style="list-style-type: none"> Diarrhea Other signs : Anorexia, vomiting, respiratory or neurological signs 	Likely cause	X	+ Anti-inflammatory for neurological signs
 Bacteria	<i>Salmonella</i> spp.	<ul style="list-style-type: none"> Diarrhea (Watery to mucoid) Other signs : Fever, anorexia, vomiting, dehydration 	Possible cause/Carrier	O	Fluid therapy, antibacterial (Amoxicillin, etc.)
	<i>Campylobacter</i> spp.	<ul style="list-style-type: none"> Diarrhea (Watery mucoid) Usually asymptomatic 	Unlikely cause	O	Antibacterial (Erythromycin, etc.)
	<i>Clostridium perfringens</i>	<ul style="list-style-type: none"> Diarrhea (Self-limiting to fatal acute hemorrhagic) 	Possible cause/Carrier	X	Antibacterial (Amoxicillin, etc.) * Use of tetracycline use should be avoided
 Protozoa	<i>Giardia lamblia</i>	<ul style="list-style-type: none"> Diarrhea (None to chronic) Weight loss (Vomiting unusual) 	Possible cause	O	Dietary manipulation with antiprotozoal (Metronidazole, etc.)
	<i>Cryptosporidium</i> spp.	<ul style="list-style-type: none"> Small-bowel diarrhea Other signs : Anorexia, weight loss (Vomiting uncommon) 	Likely cause	O	Antiprotozoal (Azithromycin, etc.) * Optimal duration is uncertain

※ Please note that treatment approaches can vary between hospitals, and this information is for reference only

Vcheck M Canine Diarrhea 8 Panel

Key Strengths

Screening at once



Simultaneous detection of 8 possible pathogens in a patient with diarrhea

Earlier detection



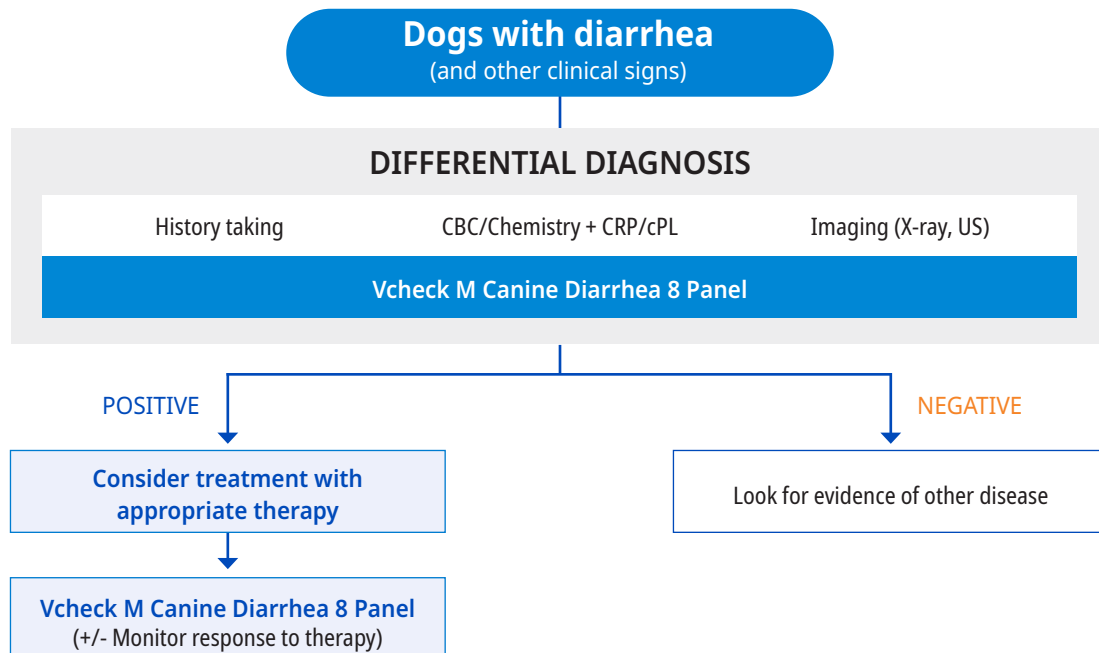
Early detection of pathogens in patients with mild clinical symptoms or early clinical stages

Zoonotic potential



Determining the potential for transmission by confirming the presence of zoonotic infections

Diagnostic Algorithm



Specifications



Detection Target

- ① Canine parvovirus type 2
- ② Canine coronavirus
- ③ Canine distempervirus
- ④ *Giardia lamblia*
- ⑤ *Cryptosporidium* spp.
- ⑥ *Salmonella* spp.
- ⑦ *Clostridium perfringens*
- ⑧ *Campylobacter* spp.

Species

: Canine

Sample Type

: Feces 0.1g

Testing Time

: 70 minutes

Storage Condition

: 2~28 °C

Shelf Life

: 12 months

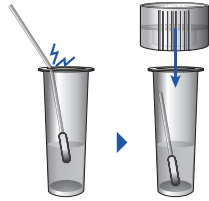
Vcheck M Canine Diarrhea 8 Panel

Test Procedure

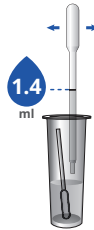
- *Please carefully refer to the provided insert before running a test
- *Please use provided stool pretreatment kit within the product only

[Stool pretreatment kit components]

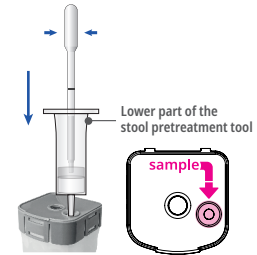
Disposable swab, disposable dropper, stool pretreatment tool, stool pretreatment solution, tube cap



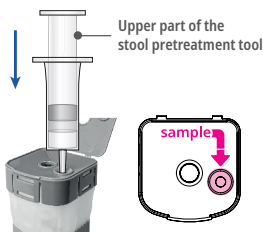
- 1 Collect 0.1g of a sample using a disposable swab and add it to the stool pretreatment solution.



- 2 Collect 1.4ml of a sample using a disposable dropper.



- 3 Place the stool pretreatment tool into the sample hole of the cartridge. And inject the sample into the tool.



- 4 Press down the upper part of the stool pretreatment tool to inject the sample into the cartridge.



- 5 Close the lid of the cartridge and insert it into the M10 module.

Result interpretation

	Pathogen	Internal Control
Positive	+ ct value	V
Negative	- N/A	V
Invalid / Re-test	+ / -	!

Performance

- Analytical sensitivity¹ (Limit of detection, LoD)

	<i>Campylobacter</i> spp.	<i>Salmonella</i> spp.	Canine coronavirus	Canine distempervirus	<i>Cryptosporidium</i> spp.	Canine parvovirus 2	<i>Clostridium perfringens</i>	<i>Giardia lamblia</i>
LoD (copies/mL)	2.7X10 ³	2.7X10 ³	2.7X10 ³	2.7X10 ³	2.7X10 ³	2.7X10 ³	2.7X10 ³	9X10 ²

- Clinical evaluation² (compared to Conventional PCR & Real-time PCR)

	<i>Campylobacter</i> spp.	<i>Salmonella</i> spp.	Canine coronavirus	Canine distempervirus	<i>Cryptosporidium</i> spp.	Canine parvovirus 2	<i>Clostridium perfringens</i>	<i>Giardia lamblia</i>
Sensitivity	100% (4/4)	-	100% (14/14)	-	100% (1/1)	100% (19/19)	100% (58/58)	100% (3/3)
Specificity	100% (87/87)	98.9% (91/92)	100% (80/80)	100% (91/91)	100% (91/91)	100% (78/78)	100% (39/39)	100% (89/89)

1. SD Biosensor, Inc. R&D department
2. Commercial laboratories in Korea

Ordering Information

Product No.	Product Name	Operating Condition	Packing Unit
VCM107AC	Vcheck M Canine Diarrhea 8 Panel	2 ~ 28 °C	5 Tests/Kit