

FOR VETERINARY USE ONLY

Vcheck M

State-of-the-art POC Molecular Diagnostic System





Contents

Vcheck M10 Analyzer

Vcheck M10 Console _ 04

Vcheck M10 Module _ 05

Vcheck M Cartridge CA_ Vector-borne

Babesia gibsoni/canis _ 08

Ehrlichia/Anaplasma _ 09

Canine Vector 8 Panel _ 10

Vcheck M Cartridge CA_ Anemia

Canine Anemia 8 Panel _ 11

FIV/FelV _ 12 **Coming soon**

Vcheck M Cartridge CA_ Diarrhea

Canine Diarrhea 8 Panel _ 12 **Coming soon**

Feline Diarrhea 8 Panel _ 12 **Coming soon**

Vcheck M Cartridge LS

ASFV _ 13 **Coming soon**

State-of-the-art POC Molecular Diagnostic System

Vcheck M is a molecular diagnostic analyzer capable of both nucleic acid extraction and amplification automatically.

Vcheck M makes it possible for veterinarians to confirm infectious diseases at the point-of-care and enable fast and effective treatment.



Vcheck M10 Console

SIMPLE & EASY CONTROLLER AND ACCURATE DATA MANAGER



Seamless connectivity (LIS/HIS)



Accurate data analysis algorithm



User friendly interface with animated guide



Specification

Model	: Vcheck M10 Console
Test capacity	: Up to 8 Modules per Console
Power	: AC100~240V, 50/60 Hz
Display	: 10.1" Color Touch Screen
Memory	: 5,000 results (Ct values & amplification curves)
Barcode scanner	: Built-in
Connectivity	: HL7 PCD-01 profile support
Dimension	: 17 * 23 * 39 cm
Weight	: 2 Kg

Ordering Information

Product No.	Product Name	Operating Condition	Packing Unit
VCM752EA	Vcheck M10 Console	10 ~ 40 °C	1 EA

Vcheck M10 Module

RANDOMLY ACCESSIBLE ANALYZER



Minimum maintenance requirements



Easy connection between Modules



Automated nucleic acid extraction & amplification



Not
Connected



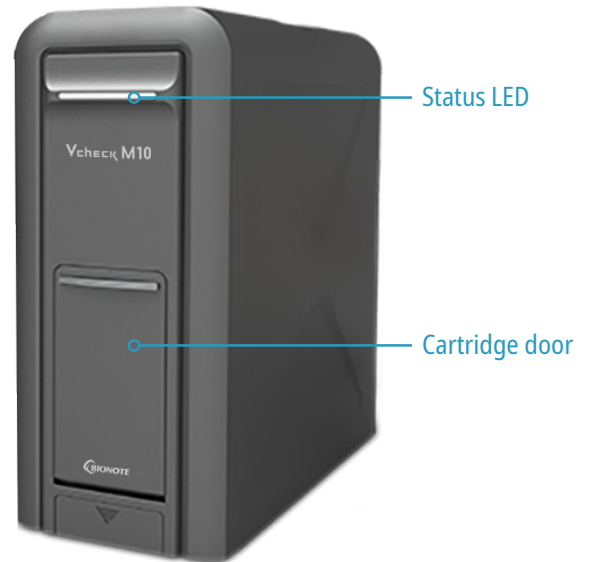
Connecting



Connection
Completed



Running



Specification

Model	: Vcheck M10 Module
Test capacity	: 1 test at a time
Power	: AC100~240V, 50/60 Hz
Extraction	: Silica Technology
Test method	: Real-time PCR, LAMP
Thermo module	: Peltier module
Optic module	: 3 channel (FMA, HEX, Cy5)
Dimension	: 14 * 32 * 33 cm
Weight	: 7 Kg

Ordering Information

Product No.	Product Name	Operating Condition	Packing Unit
VCM753EA	Vcheck M10 Module	10 ~ 40 °C	1 EA

Vcheck M10 Analyzer

Fast Results

Sample in → Result out
in about 1 hour

Multiplex

Maximum 12 targets
in a cartridge

Various Setting

Applicable for various species,
sample types, pathogens



Simple Procedure

Automated extraction,
amplification,
and data analysis

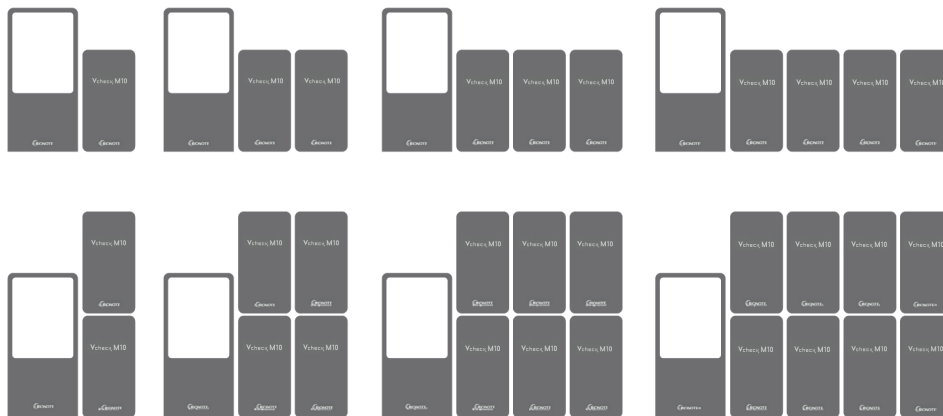
Good Accuracy

High sensitivity
and specificity

Modular & Scalable

Scalable configuration with
up to 8 modules

**Vcheck M10 can be used anywhere diagnostics are needed,
from vet clinics to specialized laboratories**



Vet clinic



Laboratory

Easy 4-step test procedure

1 Scan the sample ID



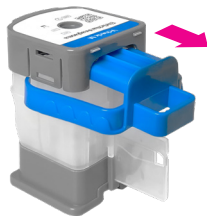
2 Scan the cartridge code



3 Apply the sample & close the cartridge



4 Insert the cartridge



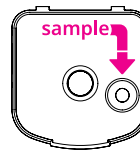
Remove the safety clip



Press down the lid



Dispense the sample



Close the lid

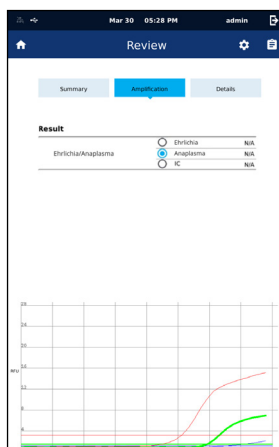
Automatic Result Reading

- No need to set threshold or read result according to cut-off
- Ct value and amplification curve can be checked

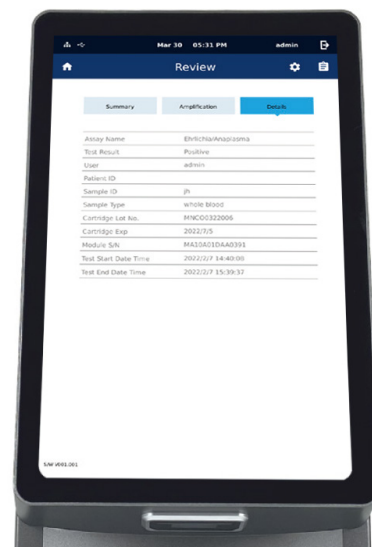
Summary



Amplification



Details



Vcheck M

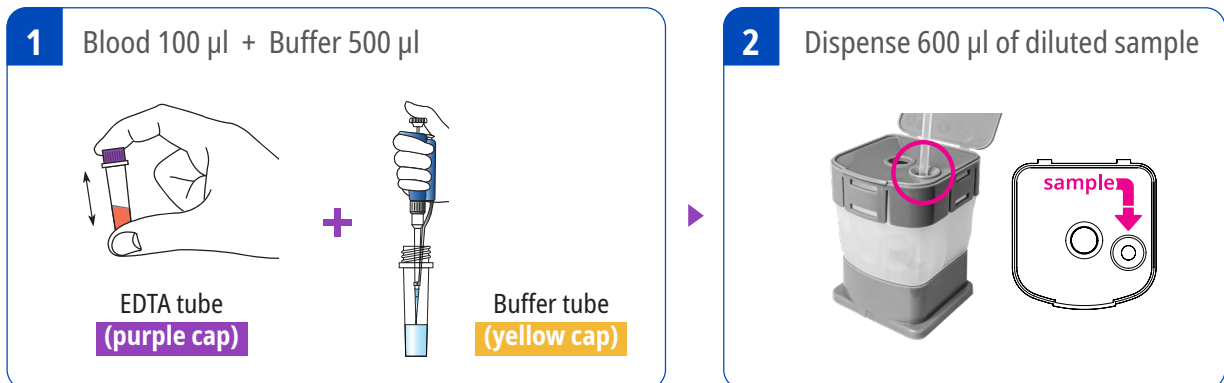
Babesia gibsoni/canis

Specification



Detection Target	: <i>Babesia gibsoni</i> <i>Babesia canis</i> (<i>B. canis canis</i> , <i>B. canis vogeli</i> , <i>B. canis rossii</i>)
Species	: Canine
Sample Type	: Whole blood (EDTA) 100 µl
Testing Time	: 60 minutes
Shelf Life	: 12 months

Test Procedure



Performance

Country	Site	Comparison test	<i>B. gibsoni</i>		<i>B. canis</i>	
			Sen	Spe	Sen	Spe
Korea	Commercial lab	Real-time PCR, Sequencing	100%	100%	100%	100%
Korea	University lab	Conventional PCR, Real-time PCR	100%	100%	-	100%
Poland	University lab	Nested PCR, Sequencing	100%	100%	100%	100%
Brazil	Commercial lab	Real-time PCR	-	100%	-	100%

Ordering Information

Product No.	Product Name	Operating Condition	Packing Unit
VCM102AC	Vcheck M Babesia gibsoni/canis	2 ~ 28 °C	5 Tests/Kit

Vcheck M

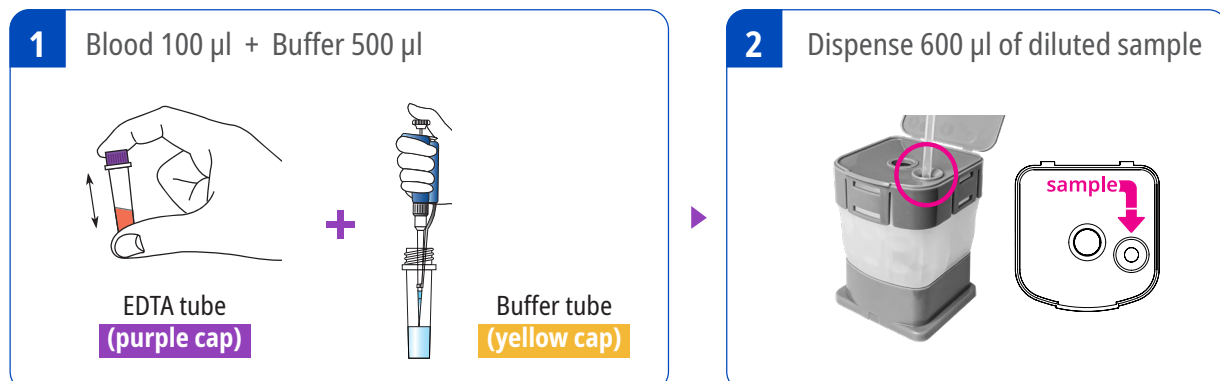
Ehrlichia/Anaplasma

Specification



Detection Target	: ① <i>Ehrlichia</i> spp. (<i>E. canis</i> , <i>E. ewingii</i>) ② <i>Anaplasma</i> spp. (<i>A. phagocytophilum</i> , <i>A. platys</i>)
Species	: Canine, Feline
Sample Type	: Whole blood (EDTA) 100 µl
Testing Time	: 70 minutes
Shelf Life	: 12 months

Test Procedure



Performance

Country	Site	Comparison test	<i>Ehrlichia</i> spp.		<i>Anaplasma</i> spp.	
			Sen	Spe	Sen	Spe
Korea	R&D department	Real-time PCR, Sequencing	100%	100%	100%	100%
Korea	University lab	Conventional PCR	-	100%	-	100%
Poland	University lab	Nested PCR	-	100%	100%	100%
Brazil	Commercial lab	Real-time PCR	100%	100%	100%	100%

Ordering Information

Product No.	Product Name	Operating Condition	Packing Unit
VCM101AC	Vcheck M Ehrlichia/Anaplasma	2 ~ 28 °C	5 Tests/Kit

Vcheck M

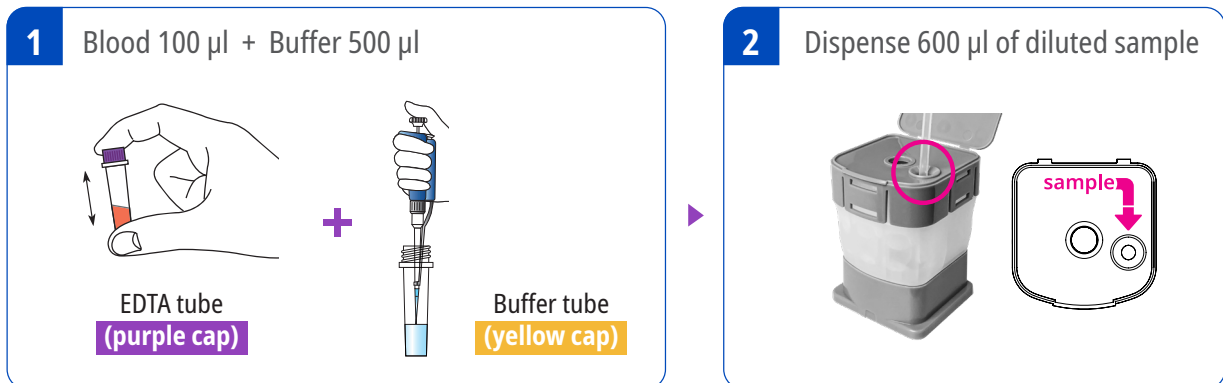
Canine Vector 8 Panel

Specification



Detection Target	: ① <i>Ehrlichia</i> spp. (<i>E. canis</i> , <i>E. ewingii</i> , <i>E. chaffeensis</i>) ② <i>Hepatozoon</i> spp. (<i>H. americanum</i> , <i>H. canis</i>) ③ Canine hemotropic mycoplasma (<i>M. haemocanis</i>) ④ <i>Anaplasma</i> spp. (<i>A. phagocytophilum</i> , <i>A. platys</i>) ⑤ <i>Rickettsia rickettsii</i> ⑥ <i>Babesia</i> spp. (<i>B. gibsoni</i> , <i>B. canis canis</i> , <i>B. canis vogeli</i> , <i>B. canis rossii</i>) ⑦ <i>Leishmania</i> spp. (<i>L. infantum</i> , <i>L. donovani</i> , <i>L. mexicana</i>) ⑧ <i>Bartonella</i> spp. (<i>B. henselae</i> , <i>B. koehlerae</i>)
Species	: Canine
Sample Type	: Whole blood (EDTA) 100 µl
Testing Time	: 70 minutes
Shelf Life	: 12 months

Test Procedure



Performance

LOD

	<i>Ehrlichia</i>	<i>Hepatozoon</i>	Hemoplasma	<i>Anaplasma</i>	<i>Rickettsia</i>	<i>Babesia</i>	<i>Leishmania</i>	<i>Bartonella</i>
LOD (copies/ml)	3×10^3	2.4×10^4	2.4×10^4	1.2×10^4	6×10^3	2.4×10^4	1.2×10^4	6×10^3

Clinical Performance

	<i>Ehrlichia</i>	<i>Hepatozoon</i>	Hemoplasma	<i>Anaplasma</i>	<i>Rickettsia</i>	<i>Babesia</i>	<i>Leishmania</i>	<i>Bartonella</i>
Sensitivity	100%	100%	100%	100%	-	100%	-	-
Specificity	100%	-	-	100%	-	100%	100%	-

Ordering Information

Product No.	Product Name	Operating Condition	Packing Unit
VCM104AC	Vcheck M Canine Vector 8 Panel	2 ~ 28 °C	5 Tests/Kit

Vcheck M

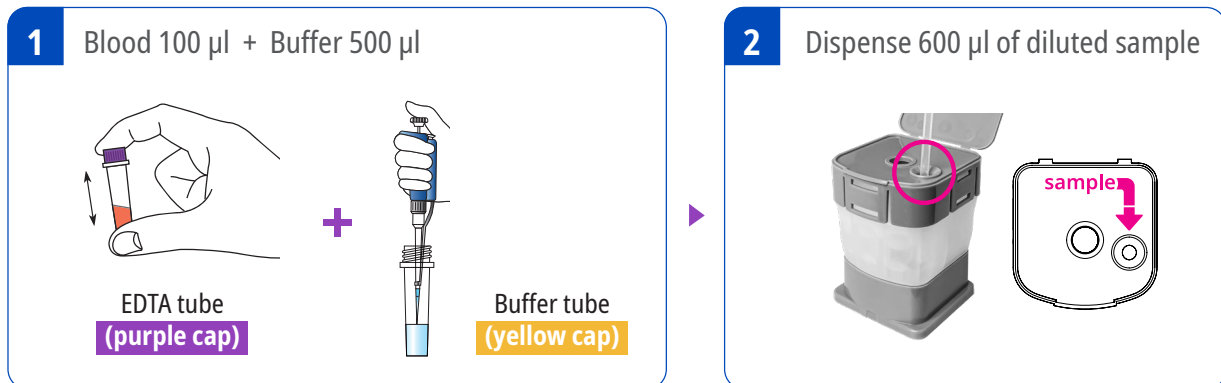
Canine Anemia 8 Panel

Specification



Detection Target	: ① <i>Ehrlichia</i> spp. (<i>E. canis</i> , <i>E. ewingii</i> , <i>E. chaffeensis</i>) ② <i>Hepatozoon</i> spp. (<i>H. americanum</i> , <i>H. canis</i>) ③ Canine hemotropic mycoplasma (<i>M. haemocanis</i>) ④ <i>Anaplasma</i> spp. (<i>A. phagocytophilum</i> , <i>A. platys</i>) ⑤ <i>Rickettsia rickettsii</i> ⑥ <i>Babesia</i> spp. (<i>B. gibsoni</i> , <i>B. canis canis</i> , <i>B. canis vogeli</i> , <i>B. canis rossi</i>) ⑦ <i>Leptospira interrogans</i> (sv. Autumnalis, Grippotyphosa, Bratislava, Pomona, Canicola, Icterohaemorrhagiae) ⑧ <i>Borrelia</i> spp. (<i>B. burgdorferi</i> , <i>B. afzelii</i> , <i>B. garinii</i>)
Species	: Canine
Sample Type	: Whole blood (EDTA) 100 µl
Testing Time	: 70 minutes
Shelf Life	: 12 months

Test Procedure



Performance

LOD

	<i>Ehrlichia</i>	<i>Hepatozoon</i>	Hemoplasma	<i>Anaplasma</i>	<i>Rickettsia</i>	<i>Babesia</i>	<i>Leptospira</i>	<i>Borrelia</i>
LOD (copies/ml)	3×10^3	2.4×10^4	2.4×10^4	1.2×10^4	6×10^3	2.4×10^4	2.4×10^4	1.2×10^4

Clinical Performance

	<i>Ehrlichia</i>	<i>Hepatozoon</i>	Hemoplasma	<i>Anaplasma</i>	<i>Rickettsia</i>	<i>Babesia</i>	<i>Leptospira</i>	<i>Borrelia</i>
Sensitivity	100%	100%	100%	100%	-	100%	-	-
Specificity	100%	-	-	100%	-	100%	100%	-

Ordering Information

Product No.	Product Name	Operating Condition	Packing Unit
VCM105AC	Vcheck M Canine Anemia 8 Panel	2 ~ 28 °C	5 Tests/Kit

Vcheck M FIV/FeLV

Coming soon

Specification



Detection Target	: ① Feline Immunodeficiency virus ② Feline Leukemia virus
Species	: Feline
Sample Type	: Whole blood (EDTA) 100 µl

Vcheck M Canine Diarrhea 8 Panel

Coming soon

Specification



Detection Target	: ① Canine Parvovirus type 2 ② Enteric Coronavirus ③ Canine Distemper virus ④ <i>Giardia</i> spp. ⑤ <i>Cryptosporidium</i> spp. ⑥ <i>Salmonella</i> spp. ⑦ <i>Clostridium perfringens</i> ⑧ <i>Campylobacter</i> spp.
Species	: Canine
Sample Type	: Feces

Vcheck M Feline Diarrhea 8 Panel

Coming soon

Specification



Detection Target	: ① Feline Panleukopenia virus ② Feline Coronavirus ③ <i>Giardia</i> spp. ④ <i>Tritrichomonas blagburni</i> ⑤ <i>Toxoplasma gondii</i> ⑥ <i>Salmonella</i> spp. ⑦ <i>Campylobacter</i> spp. ⑧ <i>Cryptosporidium</i> spp.
Species	: Feline
Sample Type	: Feces

Vcheck M

ASFV

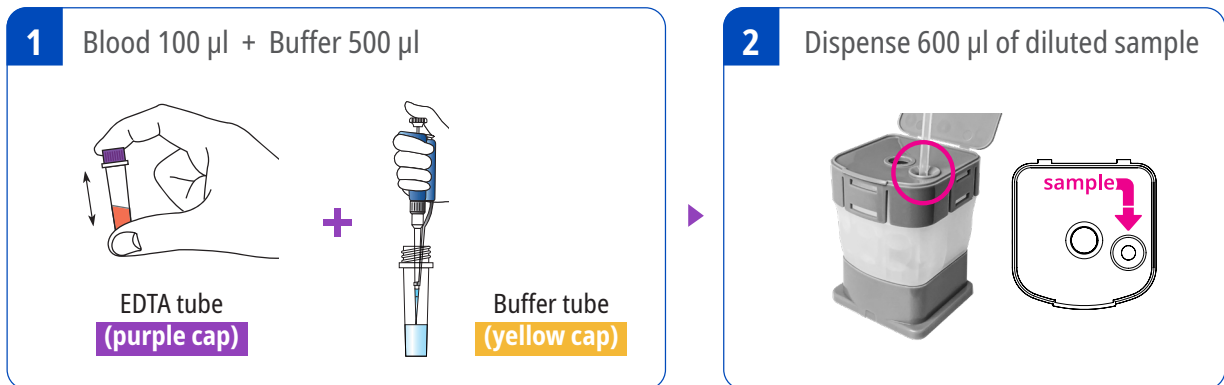
Coming soon

Specification



Detection Target	: African Swine Fever Virus (genotype I~XXIV)
Species	: Swine
Sample Type	: Whole blood (EDTA) 100 µl
Testing Time	: 60 minutes
Shelf Life	: 12 months

Test Procedure



Performance

- LOD: 2×10^3 copies/ml
- No cross-reactivity with other pathogens
- Clinical Performance:

Country	Site	Comparison test	Sensitivity	Specificity
Korea	R & D department	Real-time PCR	100%	100%

Ordering Information

Product No.	Product Name	Operating Condition	Packing Unit
VCM106AC	Vcheck M ASFV	2 ~ 28 °C	5 Tests/Kit

Vcheck M

Ordering Information

Analyzer

	Product	Contents	Cat No.
Analyzer	Vcheck M10 Console	M10 Console (Controller)	VCM752EA
	Vcheck M10 Module	M10 Module (Analyzer)	VCM753EA

Cartridge

	Product	Detection Target	Cat No.
Companion Animal	Vcheck M Ehrlichia/Anaplasma	<i>Ehrlichia</i> spp. <i>Anaplasma</i> spp.	VCM101AC
	Vcheck M Babesia gibsoni/canis	<i>Babesia gibsoni</i> <i>Babesia canis</i>	VCM102AC
	Vcheck M Canine Vector 8 Panel	<i>Ehrlichia</i> spp. <i>Hepatozoon</i> spp. Canine hemotropic mycoplasma (CHM) <i>Anaplasma</i> spp. <i>Rickettsia rickettsii</i> <i>Babesia</i> spp. <i>Leishmania</i> spp. <i>Bartonella</i> spp.	VCM104AC
	Vcheck M Canine Anemia 8 Panel	<i>Ehrlichia</i> spp. <i>Hepatozoon</i> spp. Canine hemotropic mycoplasma (CHM) <i>Anaplasma</i> spp. <i>Rickettsia rickettsii</i> <i>Babesia</i> spp. <i>Leptospira interrogans</i> <i>Borrelia</i> spp.	VCM105AC
	Vcheck M FIV/FeLV*	Feline immunodeficiency virus (FIV) Feline leukemia virus (FeLV)	-
	Vcheck M Canine Diarrhea 8 Panel*	Canine parvovirus type 2 (CPV-2) Enteric coronavirus (CECoV) Canine distemper virus (CDV) <i>Giardia</i> spp. <i>Cryptosporidium</i> spp. <i>Salmonella</i> spp. <i>Clostridium perfringens</i> <i>Campylobacter</i> spp.	-
	Vcheck M Feline Diarrhea 8 Panel*	Feline panleukopenia virus (FPV) Feline coronavirus (FCoV) <i>Giardia</i> spp. <i>Trichostrongylus axei</i> <i>Toxoplasma gondii</i> <i>Salmonella</i> spp. <i>Campylobacter</i> spp. <i>Cryptosporidium</i> spp.	-
	Livestock	Vcheck M ASFV	African swine fever virus (ASFV)

It includes upcoming products. * marked products are scheduled to be released.

Vcheck M

Ordering Information

Cartridge

	Product	Detection Target	Cat No.
	Vcheck M Feline Anemia 7 Panel*	Feline immunodeficiency virus (FIV) Feline leukemia virus (FeLV) <i>Ehrlichia</i> spp. <i>Anaplasma</i> spp. <i>Bartonella</i> spp. <i>Cytauxzoon felis</i> Feline hemotropic mycoplasma (FHM)	-
	Vcheck M Feline Respiratory 6 Panel*	Feline herpesvirus type 1 (FHV-1) Feline calicivirus (FCV) <i>Mycoplasma felis</i> <i>Chlamydophilia felis</i> Influenza virus <i>Bordetella bronchiseptica</i>	-
Companion Animal	Vcheck M Canine Respiratory 8 Panel*	Canine distemper virus (CDV) Canine adenovirus type 2 (CAV-2) <i>Bordetella bronchiseptica</i> Canine influenza virus (CIV) Canine parainfluenza virus (CPIV) Canine herpesvirus type 1 (CHV-1) Canine respiratory coronavirus (CRCoV) <i>Mycoplasma cynos</i>	-
	Vcheck M Feline Neurologic 6 Panel*	<i>Bartonella</i> spp. <i>Cryptococcus</i> spp. Feline coronavirus (FCoV) <i>Toxoplasma gondii</i> Feline immunodeficiency virus (FIV) Feline leukemia virus (FeLV)	-
	Vcheck M Canine Neurologic 8 Panel*	Canine distemper virus (CDV) <i>Toxoplasma gondii</i> <i>Neospora</i> spp. <i>Cryptococcus</i> spp. <i>Coccidioides</i> spp. <i>Bartonella</i> spp. <i>Borrelia</i> spp. <i>Blastomyces dermatitidis</i>	-
Livestock	Vcheck M AIV*	Avian influenza virus (AIV)	-

It includes upcoming products. * marked products are scheduled to be released.



Manufactured by

BioNote, Inc.

22, Samsung 1-ro 4-gil, Hwaseong-si, Gyeonggi-do, 18449, Republic of Korea
TEL: 82-31-211-0516 | FAX : 82-31-8003-0618 | www.bionote.co.kr

rev.1