YS-M4

Compact Real-Time PCR System

A focused veterinary molecular platform combining four fluorescence channels, fast thermal control, a 4-inch touch screen and Wi-Fi connectivity in a compact 750 g instrument.

Two practical sample-to-result workflows

Use an extraction-free one-step method for speed, or pair YS-M4 with the AC20 nucleic-acid extractor when a dedicated extraction step is required.

750 g	4 channels	10°C/sec	120 × 120 mm
Approximate instrument weight	Fluorescence channels	Maximum ramp rate	Instrument footprint

Key specifications

Throughput	1 sample/run	**Reaction system**	15-100 µL
Control accuracy	±0.1°C	**Uniformity**	±0.2°C
Heated lid	30-110°C; default 105°C	**Dyes**	FAM/SYBR Green I, HEX/VIC/JOE/TET, ROX, CY5
Dimensions	120 × 120 × 140 mm	**Power**	DC 12 V, 80 W

A CLOSER LOOK

Simple, single-tube handling

See the lid and loading chamber in detail.

Compact, top-access design

A close-up of the lid and compact instrument body, finished in the YSENZ VET family colors.

Load one prepared PCR tube

Place the prepared tube into the central well, close the lid and start the assay-specific program.

Detail photographs have been retouched to show the YSENZ VET color and branding configuration. Final supplied appearance may vary.

TWO SAMPLE-TO-RESULT OPTIONS

Flexible molecular workflows

Choose the method that fits the assay, specimen type and laboratory workflow. AC20 is the only extraction instrument shown in the extraction workflow.

DIRECT WORKFLOW

Extraction-free one-step method

01 **Collect & mix**
Collect the pet sample directly into a prefilled tube containing extraction-free buffer. Mix and wait approximately 5 minutes.

02 **Dispense**
Invert the tube and press the blue bottom button. Dispense 25 µL into the prealiquoted lyophilized PCR reagent.

03 **Quick spin**
Centrifuge for 10 seconds.

04 **Amplify on YS-M4**
Load the prepared tube and run the selected real-time PCR program.

AC20 WORKFLOW

Method with nucleic-acid extraction

01 **Collect sample**
Collect the appropriate validated specimen for the selected assay.

02 **Extract on AC20**
Add 200 µL of sample to the prefilled extraction reagent and complete extraction on AC20.

03 **Quick spin**
Centrifuge the prepared reaction tube for 10 seconds.

04 **Amplify on YS-M4**
Transfer 25 µL of prepared sample to the PCR reagent and start amplification.

Workflow advantages

Simple operation
A streamlined workflow from sample preparation to amplification.

Efficient turnaround
Optimized workflows designed for decentralized veterinary molecular testing.

Flexible multiplexing
Up to four fluorescence channels support single-target and multiplex assay designs.

Assay-dependent sensitivity
Performance depends on assay design, specimen type and validation requirements.

Workflow volumes and specimen types must follow the instructions for the selected assay. Assay availability and performance specifications may vary by market.

VETERINARY NUCLEIC-ACID TESTING

Pet molecular assay menu

Single-target and multiplex options for common canine, feline and zoonotic pathogens.

Core single-target assays

Canine parvovirus (CPV)
Canine distemper virus (CDV)
Canine adenovirus - generic, type 1 and type 2 options
Canine parainfluenza virus (CPIV)
Canine coronavirus (CCoV)
Feline coronavirus (FCoV)
Toxoplasma gondii
Bordetella bronchiseptica
Mycoplasma spp.
Mouse hepatitis virus (MHV)
Giardia lamblia
Cryptosporidium spp.
Tritrichomonas foetus
Rickettsia spp.
Bartonella henselae
Feline hemotropic Mycoplasma
Canine Mycoplasma

Feline panels

Feline respiratory 5-panel - Mycoplasma spp., Chlamydia felis, Bordetella bronchiseptica, feline calicivirus and feline herpesvirus type 1
Feline diarrhea 5-panel - FCoV, feline panleukopenia virus, Giardia, Cryptosporidium and Tritrichomonas foetus
FCoV + feline panleukopenia virus duplex
Feline diarrhea 4-panel - FCoV, feline panleukopenia virus, Giardia and Tritrichomonas foetus

CANINE & ZOONOTIC PANELS

Multiplex testing options

Consolidated panels support syndrome-oriented veterinary molecular testing and efficient use of the YS-M4 fluorescence channels.

Canine and zoonotic panels

Canine respiratory 6-panel - CDV, canine influenza virus, CPIV, canine Mycoplasma, CAV-2 and Bordetella bronchiseptica
Canine diarrhea 4-panel - canine coronavirus, canine parvovirus, Giardia and Tritrichomonas foetus
Zoonotic 6-panel - Toxoplasma gondii, Leptospira, Giardia, Rickettsia, Bartonella henselae and feline hemotropic Mycoplasma

REAGENT FORMATS

Lyophilized or liquid formats

Typical offerings can be supplied in lyophilized or liquid reagent formats, depending on the assay and market.

PACK CONFIGURATIONS

Assay-dependent pack sizes

Pack sizes may include 16, 48 or 50 tests, subject to the selected assay and commercial configuration.

PIPELINE

Additional species coverage

Additional molecular assays for exotic pets and other veterinary applications are under development.

Important information

This brochure summarizes a configurable veterinary molecular diagnostics platform. Assay menu, reagent format, pack size, analytical performance, intended use and regulatory status may differ by market. Confirm the current specifications and local registration requirements with Wisenz Biotech Limited before commercial use.

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ADDITIONAL REAGENT OPTIONS

Explore a broader veterinary menu

Selected research-use PCR reagent options, organized by species. These are separate from the existing pet assay menu.

These additional reagent options are supplied for research use only. Listing does not establish validation on YS-M4. Confirm instrument compatibility, channel configuration, extraction requirements and the current assay instructions before ordering. Results must not be used as the sole basis for clinical diagnosis.

Companion-animal reagent details

Feline coronavirus (FCoV)
Listed specimens: EDTA whole blood, thoracic or abdominal fluid, feces
Listed channels: FAM / VIC. Endogenous internal control; assay-specific preparation and YS-M4 compatibility require confirmation.

Chlamydia felis
Listed specimens: Eye and nasal secretions
Listed channels: FAM / VIC. Endogenous internal control; assay-specific preparation and YS-M4 compatibility require confirmation.

Cattle, sheep & goats - selected research-use options

- Brucella spp.
- Peste des petits ruminants virus (PPRV)
- Bovine viral diarrhea virus (BVDV): universal, type 1 and type 2 options
- Sheeppox / goatpox virus
- Lumpy skin disease virus (LSDV)
- Akabane virus
- Mycobacterium avium subsp. paratuberculosis (MAP)
- Bluetongue virus
- Mycoplasma bovis
- Mycoplasma mycoides (contagious bovine pleuropneumonia)
- Bovine herpesvirus 1 (infectious bovine rhinotracheitis)
- Border disease virus
- Bovine ephemeral fever virus

Equine - selected research-use options

- African horse sickness virus
- Eastern equine encephalitis virus

Equine - selected research-use options

Equine infectious anemia virus
Equine piroplasms
Getah virus

Swine - selected research-use options

African swine fever virus (ASFV), including gene-target combinations
Porcine reproductive and respiratory syndrome virus (PRRSV), including strain and multiplex options
Classical swine fever virus
Porcine epidemic diarrhea virus (PEDV)
Transmissible gastroenteritis virus (TGEV)
Porcine rotavirus group A
Porcine deltacoronavirus
PEDV / TGEV / rotavirus multiplex
Porcine circovirus types 2, 3 and 4
Foot-and-mouth disease virus: universal, O, A and Asia 1 options
Pseudorabies virus: gH, gB, gE and combinations
Porcine parvovirus
Mycoplasma hyopneumoniae
Streptococcus suis, including type 2
Senecavirus A
Glaesserella parasuis (Haemophilus parasuis)
Influenza A and swine H1 / H3 / H1N1-2009 options
Actinobacillus pleuropneumoniae
Lawsonia intracellularis
Pathogenic Leptospira

Poultry & other birds - selected research-use options

Avian influenza A: H5, H7, H9 and multiplex options
Avian leukosis virus and subgroup options
Newcastle disease virus

Poultry & other birds - selected research-use options

Infectious bronchitis virus
Infectious laryngotracheitis virus
Infectious bursal disease virus
Avian reovirus
Mycoplasma gallisepticum / Mycoplasma synoviae
Duck plague virus
Salmonella spp., including Gallinarum, Pullorum and Enteritidis
Fowl adenovirus group I and types 4, 8b and 11
Marek's disease virus
Duck hepatitis A virus types 1, 2 and 3
Goose and Muscovy duck parvovirus
Duck Tembusu virus
Goose astrovirus
Avian metapneumovirus
Egg drop syndrome virus
Chicken infectious anemia virus
Fowlpox virus

Fish & shrimp - selected research-use options

Enterocytozoon hepatopenaei (EHP)
Vibrio harveyi
White spot syndrome virus (WSSV)
Acute hepatopancreatic necrosis disease (AHPND / EMS)
Shrimp hemocyte iridescent virus (SHIV / DIV1)
Taura syndrome virus
Siniperca chuatsi rhabdovirus
Largemouth bass virus / ulcerative syndrome virus
Infectious spleen and kidney necrosis virus (ISKNV)
Frog virus 3
Infectious hypodermal and hematopoietic necrosis virus (IHHNV)

Fish & shrimp - selected research-use options
Infectious myonecrosis virus
Yellow head virus
Singapore grouper iridovirus
Spring viremia of carp virus
Viral nervous necrosis virus
Carp pox virus (CyHV-1)
Cyprinid herpesvirus 2 (CyHV-2)
Koi herpesvirus (CyHV-3)
Grass carp reovirus types 1, 2 and 3
Vibrio spp. / Vibrio parahaemolyticus
Selected EHP, Vibrio, EMS and WSSV combination panels

Before selecting a reagent

This is a selected portfolio, not a complete list of every strain or panel configuration. The source includes extraction-based reagents; the extraction-free workflow is not applicable to every assay. Fluorescence-channel overlap alone does not demonstrate compatibility. Confirm the appropriate reagent, program and workflow for your application.

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