# Monkeypox Virus Real Time PCR Kit

For Research Use Only



## **FEATURES**







Monkeypox is a rare disease that is caused by infection with monkeypox virus. Monkeypox virus belongs to the Orthopoxvirus genus in the family Poxviridae. The Orthopoxvirus genus also includes variola virus (which causes smallpox), vaccinia virus (used in the smallpox vaccine), and cowpox virus. Monkeypox was first discovered in 1958 when two outbreaks of a pox-like disease occurred in colonies of monkeys kept for research, hence the name 'monkeypox.' In humans, the symptoms of monkeypox are similar to but milder than the symptoms of smallpox. Monkeypox begins with fever, headache, muscle aches, and exhaustion. The main difference between symptoms of smallpox and monkeypox is that monkeypox causes lymph nodes to swell (lymphadenopathy) while smallpox does not. Transmission of monkeypox virus occurs when a person comes into contact with the virus from an animal, human, or materials contaminated with the virus. The virus enters the body through broken skin (even if not visible), respiratory tract, or the mucous membranes (eyes, nose, or mouth). Laboratory tests that are used to diagnose monkeypox virus include detection of immunohistochemical testing, electron microscopy, real time polymerase chain reaction (RT-PCR), and virus isolation.

The Bioperfectus Monkeypox Virus Real Time PCR Kit is based on real-time PCR technology. Specific primers and probes are designed based on specific areas of Monkeypox virus. In addition, the kit also contains a house-keeping gene (RNase P) as an internal control (IC) for specimen sampling and nucleic acid extraction.

## • SAMPLE TYPE AND PRE-PROCESSING •

Specimen type

Human serum, lesion exudate samples and scab.

Veterinary Use version also available! Contact our sales rep or via info@bioperfectus.com for inquiry. Pre-processing

For serum and lesion exudate samples

> Transfer 200 µL of supernatant for nucleic acid extraction

#### For scab or crust samples

- > Mix 0.2g-1.0g of tissue samples with sterilized quartz-sand by ratio of 1:1 (v/v) and grind thoroughly
- > Add PBS (0.01mol/L, pH 7.6-7.8) with ratio of 1:5 (w/v)
- > Freeze-thaw twice at -20°C then centrifuge at 8,000 rpm for 5 minutes at 4°C
- > Transfer 200 µL of supernatant for nucleic acid extraction

### · TOTAL PCR SOLUTION ·

#### **Nucleic Acid Extraction Reagent**

Nucleic Acid Extraction Rapid Kit (Magnetic Bead Method) SDKF60101

Viral Nucleic Acid Extraction Kit (Magnetic Bead Method) SDK60104

Nucleic Acid Extraction Kit (Silica-Based Spin Column) SDK60102

#### **Nucleic Acid Extraction System**

SSNP-2000B, 3000A, 9600A (32, 64, 96 channels)

SMPE-960 (3\*32 channels)

SAW-96, SAW-48\* (96, 48 channels) \*coming soon PCR instrument

Bioperfectus STC-96A, STC-96A PLUS

Applied Biosystems 7500

QuantStudio 5

Roche LightCycler480

Bio-Rad CFX96

QIAGEN Rotor-Gene Q

Analytik Jena qTOWER

## · PACKAGING ·

CATALOG PRODUCT PACKAGE

YJC70115NW-25T

Monkeypox Virus Real Time PCR Kit

YJC70115NW-50T

25T/Kit

50T/Kit

## · KIT COMPONENTS ·

COMPONENTS	VIALS/KIT	VOLUME/25T	VOLUME/50T
PCR Reaction Mix	1	313 µL	625 µL
Detection Mix	1	188 µL	375 µL
Positive Control	1	25 μL	50 µL
Blank Control	1	250 µL	250 µL

# · INSTRUCTION FOR USE ·



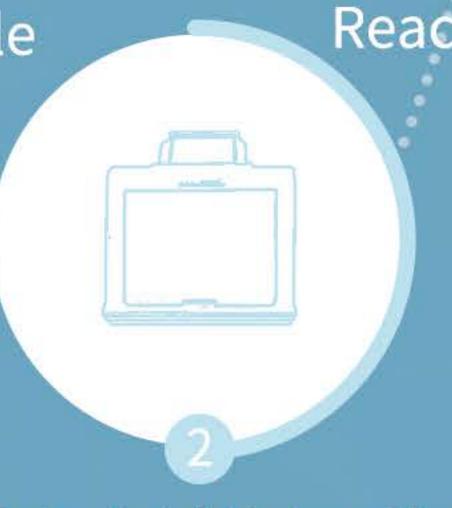
Collect Sample



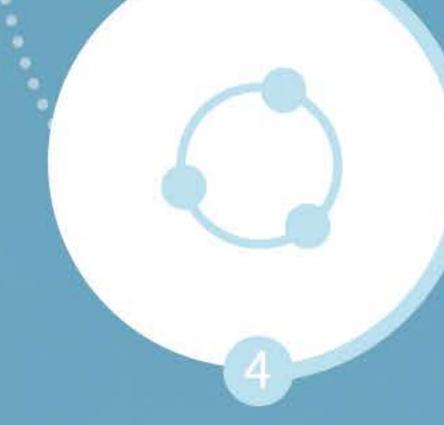
Reaction Mix Preparation



Get the Result



**Nucleic Acid Extraction** 



Run the Real-Time PCR Program

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#### **AUTHORIZED DISTRIBUTOR**