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For research use only.

Nipah virus detection kit (Taqman probe method)

Item number	Specification	Storage / Shelf life
EQ042 -1	**50rxns**	-20°C/1 year
EQ042 -2	**100rxns**	-20°C/ 1year

Product Advantages

- Ready to use; only a DNA template is required.
- High specificity primers and probe with no cross-reactivity to other common pathogens.
- Includes positive control for assay validation and false-negative differentiation.

Product Description

Nipah virus (NiV) is a zoonotic RNA virus belonging to the genus Henipavirus within the family Paramyxoviridae, closely related to Hendra virus. It was first identified in 1998 in Nipah village, Malaysia. In January 2026, an outbreak occurred in West Bengal, eastern India, where five confirmed cases were identified through laboratory testing, and close contacts were rapidly traced by the government. Nipah virus infection can lead to a wide range of clinical manifestations, including asymptomatic infection, acute respiratory infection, and fatal meningitis, with an estimated mortality rate of 40% to 75%. Due to its significant impact on human and animal health, the establishment of rapid and accurate detection methods for Nipah virus is of great importance for related research.

This product utilizes the Taqman probe method to detect the presence of Nipah virus in samples. The kit contains primers and probes specifically designed for the conserved P protein region of NiV, HotStarTaq DNA Polymerase, and an optimized qPCR buffer system, which together enhance amplification efficiency and enable effective amplification of low-concentration templates.

A positive control is included in this kit.

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Reagent composition

Components	50rxns	100rxns
2x NiV qPCR Mix	500μL	1mL
Primer & Probe Mix	50μL	100μL
NiV Positive Control	250μL	500μL
ROX Reference Dye	750μL	1.5mL
RNase-free ddH2O	750μL	1.5mL
manual	1	1

Reagent kit application

For research use only. Not approved for clinical or in vitro diagnostic use.

Precautions

1. template

- DNA

2. Transportation and storage methods

1) Transportation of ice packs and dry ice.

2) Store at -20℃ protected from light. This product contains fluorescent dye ; therefore, avoid strong light exposure when storing or preparing reaction systems. Always invert and mix thoroughly before use.

3) For your safety and health, please wear a lab coat and disposable gloves when performing experiments.

Reaction system

Prepare the reaction system as described below. For multiple reactions, a premix containing the common components may be prepared and an appropriate volume dispensed into each tube or well, followed by the addition of specific reaction components (e.g., the template).

Component	Test sample	PCR negative control	PCR positive control
2x NiV qPCR Mix	10 µl	10 µl	10 µl
Primer & Probe Mix	1 µl	1 µl	1 µl
DNA of the sample to be tested	5 µl	——	——
PCR negative control (water)	——	5 µl	——
PCR positive control	——	——	5 µl
ROX Reference Dye *	0.4 µl	0.4 µl	0.4 µl
ddH_2O	up to 20µl	up to 20µl	up to 20µl

1. It is recommended to load samples according to the reaction system specified in this instruction manual.
2. Cap or seal the reaction tubes/PCR plate and mix gently. Brief centrifugation may be performed to ensure all components are collected at the bottom of the tube or well.
3. Place the reaction mixtures into a real-time fluorescence quantitative PCR instrument, collect data, and analyze the results. Set up the PCR instrument according to the table below.

***ROX dyes**

ROX dye may be added to the reaction system, depending on the instrument used, to normalize the fluorescence signal. The table below lists the required amount of ROX for different instruments (per 50 µL reaction system)：

instrument	The amount of ROX required for each 20µL system reaction
ABI7300, 7900HT, StepOne, etc.	2.0 µL
ABI 7500, 7500Fast, ViiA7, Stratagene Mx3000™, Mx3005P™, and Mx4000™, etc.	0.4 µL
Roche instruments, Bio-Rad instruments, Eppendorf instruments, etc.	No need to add

Two-step amplification procedure:

Step	Cycles	Temperature	Time
Initial Denaturation	1x	95℃	2min
Denaturation	45x	95℃	10 sec
Annealing		60℃	30 sec

Results Analysis

For qualitative analysis, repeat the test 1–2 times using the original sample or after re-extracting nucleic acids. If at least one of the repeated results is positive, the sample is considered positive; if all repeated results are negative, the sample is considered negative. The gray zone range and retesting procedure should be clearly defined in the laboratory SOP. After completion of the reaction, the amplification curves must be reviewed and confirmed.