



Product Information & Manual

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Human Metapneumovirus Matrix Protein Antigen Rapid Test Kit

Cat no. LDG0005LR

Description

Human Metapneumovirus (hMPV) is a prevalent respiratory pathogen responsible for human respiratory infections worldwide. It poses a significant threat, particularly to infants, the elderly, and immuno-compromised individuals. hMPV spreads primarily through respiratory droplets or direct contact. Infection can lead to a spectrum of respiratory illnesses, ranging from mild upper respiratory tract infections to more severe lower respiratory tract infections. The symptoms of hMPV infection, including fever, cough, runny nose, and shortness of breath, closely mimic those caused by other common respiratory viruses like respiratory syncytial virus (RSV) and influenza virus. This symptomatic overlap, further compounded by hMPV's peak season often coinciding with RSV and influenza, presents a significant diagnostic challenge. Consequently, rapid and accurate diagnosis is crucial for early detection, effective epidemiological surveillance, and appropriate clinical management.

The Human Metapneumovirus Matrix Protein Antigen Rapid Test Kit is based on the sandwich lateral flow immunoassay (sandwich LFIA) principle and is specifically designed for the detection of the Human Metapneumovirus Matrix protein antigen. This method employs specific antibodies to capture and visualize the Matrix protein antigen, delivering results rapidly without requiring complex laboratory equipment. **Crucially, this test is intended for research use only and**

is NOT suitable for diagnostic or therapeutic applications.

Kit Components

Human Metapneumovirus Antigen Lateral Flow Device	25 strips
Extraction Buffer	12 mL, 1 bottle
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Sample Requirements and Dilution Conditions

Sample Type	Dilution Requirements
Swab Specimen	Collect a nasopharyngeal sample using a swab and immerse the swab in Extraction Buffer for lysis.

Note: The Human Metapneumovirus Matrix Protein (Catalog No. LDG034PVE) is available for use as a protein standard. When serially diluted in Extraction Buffer, a limit of detection (LOD) as low as 100-500 pg/mL can be achieved.

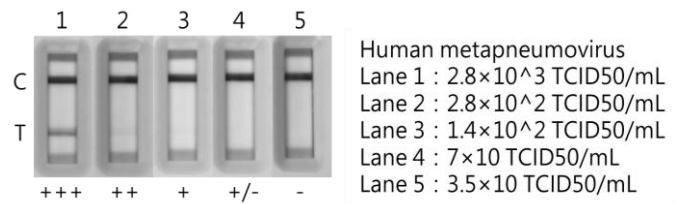
Protocol

1. Remove the test device from the foil pouch and place it on a clean and level surface.
2. Dispense 400 μ L of Extraction Buffer into a clean tube.
3. Collect a nasopharyngeal sample using a swab.
4. Immerse the swab sample into the Extraction Buffer tube, then roll the swab at least five times.
5. Leave the swab in the Extraction Buffer tube for one minute to ensure thorough lysis.
6. Dispense 100 μ L of the sample into the sample well of the test device.
7. Interpret the result after 15 minutes.

Materials required but not provided

1. 100-1000 μ L adjustable single-channel micropipettes with disposable tips or disposable droppers (100 μ L approximately five drops)
2. Disposable 1.5-2 mL microcentrifuge tubes
3. Disposable nasopharyngeal swabs
4. Timers

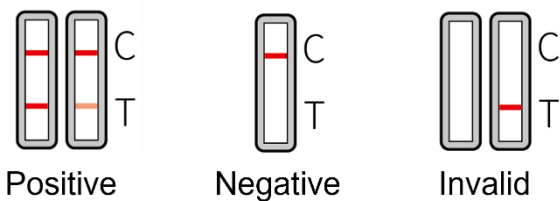
Example



Disclaimer

For Research Use or Further Manufacturing Only.

Result Interpretation



Performance

Human Metapneumovirus Matrix Protein Antigen Rapid Test Kit has a minimum detection limit for Human metapneumovirus of approximately 1.4×10^2 TCID₅₀/mL.

Storage

1. Test kits should be stored at room temperature.
2. Test devices must remain in the sealed foil pouch until use, as they are sensitive to humidity.
3. Test kits are for single use only and should not be reused.
4. Do not use the kit if the package is damaged, or the physical appearance is altered.

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