

Mouse Anti-Metapneumovirus Nucleoprotein (MPV NP) [hMPV57]: MC0199

Intended Use: For Research Use Only

Description: Metapneumovirus is a discovered paramyxovirus of the subfamily Pneumovirinae, which also includes avian pneumovirus and human respiratory syncytial virus (HRSV). Human metapneumovirus (HMPV) is classified as a member of the family Pneumoviridae, which comprises large enveloped negative-sense RNA viruses. This taxon was formerly a subfamily within the Paramyxoviridae family but was reclassified in 2016 as a separate family with two genera, Metapneumovirus (which includes HMPV) and Orthopneumovirus (which includes respiratory syncytial virus). HMPV is an enveloped virus with a nonsegmented negative-sense RNA genome. HMPV is most closely related phylogenetically to avian metapneumovirus (APV). The complete genome sequence reveals a high level of homology with APV. Phylogenetic analysis has identified two subgroups of HMPV, subgroups A and B, and two clades within each of these subgroups (designated A1, A2, B1, and B2), which often circulate concurrently. A study of 727 Australian HMPV isolates was undertaken from 2001 to 2004 to determine the epidemiologic profile of genetic subtypes associated with acute respiratory tract infections. Concurrent annual circulation of all four HMPV subtypes was common, although a single, and usually different, HMPV subtype predominated each year. HMPV is an important cause of respiratory disease worldwide, can cause upper and lower respiratory disease in people of all ages, especially among young children, older adults, and people with weakened immune systems. Broader use of molecular diagnostic testing has increased identification and awareness of HMPV as an important cause of upper and lower respiratory infection.

Specifications

Clone: hMPV57
 Source: Mouse
 Isotype: IgG1
 Reactivity: Human MPV
 Immunogen: Human MPV strain NCL-174
 Localization: Cytoplasm, nucleus
 Formulation: Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC, ELISA, IF, WB
 Package:

| Description | Catalog No. | Size |
|---|-------------|------|
| Metapneumovirus Nucleoprotein (MPV NP) Concentrated | MC0199 | 1 ml |

IHC Procedure*

Positive Control Tissue: Human MPV infected tissues
 Concentrated Dilution: 10-100
 Pretreatment: None
 Incubation Time and Temp: Overnight @ 4°C
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.

References:

1. Human Metapneumovirus: Laboratory Methods for Isolation, Propagation, and Plaque Titration. Bernal LJ, et al. Intervirology 61:301-306, 2018.
2. Human Metapneumovirus Induces Formation of Inclusion Bodies for Efficient Genome Replication and Transcription. Cifuentes-Muñoz N, et al J Virol 91:N/A, 2017.
3. Human metapneumovirus Induces Reorganization of the Actin Cytoskeleton for Direct Cell-to-Cell Spread. El Najjar F, et al. PLoS Pathog 12:e1005922, 2016.
4. Human metapneumovirus infection in adults. Ann R Falsey, et al. Pediatr Infect Dis J. Oct;27(10 Suppl):S80-3, 2008.
5. Diagnosis of human metapneumovirus by immunofluorescence staining with monoclonal antibodies in the North-East of England. Fenwick F, et al. J Clin Virol 40:193-6, 2007.