

# Pseudovirus-SARS-CoV-2-abII MEN (CDC and WHO- ORF1a/b, M, E and N gene)

Cat# PV027

Store at -20°C for 6 months

## INFORMATION

<b>DESCRIPTION:</b>	The ORF1a/b (includes CDC and WHO primer regions), M, E and N gene coding sequence were cloned into retroviral vector by chemical synthesis to obtain FNV-SARS-CoV-2-abII MEN pseudovirus. The pseudovirus are generated with HEK293T and concentrated/purified by ultracentrifuge. FNV-SARS-CoV-2-abII MEN pseudovirus contains ORF1a/b SEQ., M gene, E gene and N gene coding sequence, using in experiments which are related to RNA extraction and become the positive control of qPCR.
<b>PRODUCT NAME:</b>	FNV-SARS-CoV-2-abII MEN pseudovirus
<b>APPLICATIONS:</b>	Research use only. Recommended amount: 50-100 µl/time. According to experimental conditions, it can be adjusted.
<b>TAG:</b>	ORF1a/b SEQ, M Gene, E Gene & N Gene
<b>Main ingredient</b>	glucose 、 KH <sub>2</sub> PO <sub>4</sub> 、 Na <sub>2</sub> HPO <sub>4</sub> 、 NaCl 、 KCl 、 pseudovirus
<b>FORMULATION:</b>	Liquid
<b>PRODUCT:</b>	>1 x 10 <sup>7</sup> copy/ml in 1 ml
<b>STORAGE &amp; STABILITY:</b>	The product can be stored at -20°C or below for 6 months. Avoid repeated freezing and thawing cycles.



## STORAGE

The product can be stored at -20°C or below for 6 months. Avoid repeated freezing and thawing cycles.

## PROTOCOL

1. Pseudovirus Melting: The pseudovirus are taken from -20°C and melted with 4°C ice bath. You can execute the related experiments when the pseudovirus completely melted.
2. Pseudovirus Inactivate (optional operation): Extract the sufficient pseudovirus in eppendorf at 56°C for 30 min that need to operation in Biological safety cabinet (BSC).

3. Pseudovirus extraction and qPCR detection (materials prepare by yourself): Perform relevant experimental operations in accordance with the instructions of the RNA extraction kit and qPCR detection kit.
4. qPCR Detection (materials prepare by yourself): The qPCR detection was performed after pseudovirus RNA was synthesized cDNA by RT-PCR.
5. Supplementary: The produce maybe a small amount of plasmid DNA remain. If the experiments need high purification, it can use DNase-DEPC water by RNA extraction. You can add EDTA (final con. 5 mM) for 10 min at 75°C to inactivate DNase (optional operation).

## **NOTE**

1. Freezing and thawing will reduce the stability of the pseudovirus, which will affect the effect of RNA extraction and results of qPCR detection. Avoid repeated freezing and thawing when using.
2. If you need to dilute the pseudovirus, you can choose the 1X PBS or physiological saline (0.9% NaCl).
3. Please rinse immediately with plenty of water when the pseudovirus accidentally splashed on eyes, skin or other body parts.
4. According to the medical waste disposal specifications, the experimental waste generated by using the pseudovirus needs to perform high pressure thermal sterilization process.

## **SEQUENCE INFORMATION**

### 1. ORF1 a/b I sequence

ATCGTGTTGTCTGTACTGCCGTTGCCACATAGATCATCCAAATCCTAAAGGATTTTGTGACTTAAAAGGTAAGTA  
 TGTACAAATACCTACAACCTGTGCTAATGACCCTGTGGGTTTACACTTAAAACACAGTCTGTACCGTCTGCG  
 GTATGTGGAAAGGTTATGGCTGTAGTTGTGATCAACTCCGCGAACCCATGCTTCAGTCAGCTGATGCACAATC  
 GTTTTAAACGGGTTTGCGGTGTAAGTGCAGCCGTCTTACACCGTGCGGCACAGGCACTAGTACTGATGTCG  
 TATACAGGGCTTTTGACATCTACAATGATAAAGTAGCTGGTTTTGCTAAATTCCTAAAACTAATTGTTGTCGCT  
 TCCAAGAAAAGGACGAAGATGACAATTTAATTGATTCTTACTTTGTAGTTAAGAGACACACTTTCTCTAACTAC  
 CAACATGAAGAAACAATTTATAATTTACTTAAGGATTGTCCAGCTGTTGCTAAACAT

### 2. ORF1 a/b II sequence

GCGGCCGCTTGGCACAACATGTTAAAACTGTTTATAGTGATGTAGAAAACCCTCACCTTATGGGTTGGGATTA  
 TCCTAAATGTGATAGCCATGCCTAACATGCTTAGAATTATGGCCTCACTTGTTCTTGCTCGCAAACATACAAC  
 GTGTTGTAGCTTGTACACCGTTTCTATAGATTAGCTAATGAGTGTGCTCAAGTATTGAGTGAAATGGTCATGT  
GTGGCGGTTCACTATATGTTAAACCAGGTGGAACCTCATCAGGAGATGCCACAACCTGCTTATGCTAATAGTGT  
TTAACATTTGTCAAGCTGTCACGGCCAATGTTAATGCACTTTTATCTACTGATGGTAACAAAATTGCCGATAAG  
 TATGTCCGCAATTTACAACACAGACTTTATGAGTGTCTCTATAGAAATAGAGATGTTGACACAGACTTTGTGAAT  
 GAGTTTTACGCATATTTGCGTAAACATTTCTCAATGATGATACTCTCTGACGATGCTGTTGGGATCC

### 3. M Gene

ATGGCAGATTCCAACGGTACTATTACCGTTGAAGAGCTTAAAAAGCTCCTTGAACAATGGAACCTAGTAATAG  
GTTTCCTATTCTTACATGGATTTGTCTTCTACAATTTGCCTATGCCAACAGGAATAGGTTTTTGTATATAATTA  
GTTAATTTTCTCTGGCTGTTATGGCCAGTAACTTTAGCTTGTTTTGTGCTTGCTGCTGTTTACAGAATAAATTG  
GATCACCGGTGGAATTGCTATCGCAATGGCTTGTCTTGTAGGCTTGATGTGGCTCAGCTACTTCATTGCTTCTTT  
CAGACTGTTTGC GCGTACGCGTTCCATGTGGTCATTCAATCCAGAACTAACATTCTTCTCAACGTGCCACTCC  
ATGGCACTATTCTGACCAGACCGCTTCTAGAAAAGTGAACCTCGTAATCGGAGCTGTGATCCTTCGTGGACATCTT  
CGTATTGCTGGACACCATCTAGGACGCTGTGACATCAAGGACCTGCCTAAAGAAATCACTGTTGCTACATCACG  
AACGCTTTTCTTATTACAAATTGGGAGCTTCGCAGCGTGTAGCAGGTGACTCAGGTTTTGCTGCATACAGTCGC  
TACAGGATTGGCAACTATAAATTAACACAGACCATTCCAGTAGCAGTGACAATATTGCTTTGCTTGACAGTA  
A

### 4. E Gene

ATGTA CTCA TTTCGTTTCGGAAGAG ACAGGTACGTTAATAGTTAATAGCGTACTTCTTTTTCTTGCTTTTCGTGGTA  
TTCTTGCTAGTTACTAGCCATCCTTACTGCGCTTCGATT TGTGTGCGTACTGCTGCAATATGTTAACGTGAGT  
CTTGTA AACCTTCTTTTTACGTTTACTCTCGTGTTAAAAATCTGAATTCTTCTAGAGTTCTGATCTTCTGGTCT  
AA

### 5. N Gene

ATGTCTGATAATGG ACCCCAAATCAGCGAAATGCACCCCGCATTACGTTTGGTGACCCTCAGATTCAACTG  
GCAGTAACCAGAATGGAGAACGCAGTGGGGCGGATCAAAAACAACGTCGGCCCAAGGTTTACCCAATAATA  
CTGCGTCTTGTTACCGCTCTCACTCAACATGGCAAGGAAGACCTTAAATTCCTCGAGGACAAGGCGTTCC  
AATTAACACCAATAGCAGTCCAGATGACCAATTGGCTACTACCGAAGAGCTACCAGACGAATTCGTGGTGGT  
GACGGTAAAATGAAAGATCTCAGTCCAAGATGGTATTTCTACTACCTAGGAACTGGGCCAGAAGCTGGACTTC  
CCTATGGTGCTAACAAAGACGGCATCATATGGTTGCAACTGAGGGAGCCTTGAATACACCAAAAAGATCACAT  
TGGCACCCGCAATCCTGCTAACAAATGCTGCAATCGTGCTACAACCTCCTCAAGGAACAACATTGCCAAAAGGC  
TTCTACGCAGAAGGGAGCAGAGGGCGGAGTCAAGCCTCTTCTCGTTCCCTCATCACGTAGTCGCAACAGTTCA  
AGAAATTCAACTCCAGGCAGCAGTAGGGGAACTTCTCCTGCTAGAATGGCTGGCAATGGCGGTGATGCTGCT  
CTTGCTTTGCTGCTGCTTGACAGATTGAACCAGCTTGAGAGCAAAAATGTCTGGTAAAGGCCAACAAACAACAA  
GGCCAACTGTCACTAAGAAATCTGCTGCTGAGGCTTCTAAGAAGCCTCGGC AAAACGTA CTGCCACTAAA  
GCATACAATGTAACACAAGCTTTTCGGCAGACGTGGTCCAGAACAACCAAGGAAATTTTGGGGACCAGGA  
ACTAATCAGACAAGGAACTGATT TACAAACATTGGCCGCAAATTGCACAATTTGCCCCAGCGCTTCAGCGTTC  
TTCGGAATGTCGCGCATTGGCATGGAAGTCACACCTTCGGGAACGTGGTTGACCTACACAGGTGCCATCAAAT  
TGGATGACAAAGATCCAAATTTCAAAGATCAAGTCATTTTGCTGAATAAGCATATTGACGCATACAAAACATTC  
CCACCAACAGAGCCTAAAAAGGACAAAAAGAAGAAGGCTGATGAAACTCAAGCCTTACCGCAGAGACAGAA  
GAAACAGCAA ACTGTGACTCTTCTCCTGCTGCAGATTTGGATGATTTCTCAAACAATTGCAACAATCCATGA  
GCAGTGCTGACTCAACTCAGGCCTAA

## **REFERANCE**

[https://www.who.int/docs/default-source/coronaviruse/protocol-v2-1.pdf?sfvrsn=a9ef618c\\_2](https://www.who.int/docs/default-source/coronaviruse/protocol-v2-1.pdf?sfvrsn=a9ef618c_2)

<https://www.cdc.gov/coronavirus/2019-ncov/lab/rt-pcr-panel-primer-probes.html>

## **PRODUCT USE LIMITATION**

These products are intended for research use only.