

FNV-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

DESCRIPTION:	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.
PRODUCT NAME:	FNV-SARS-CoV-2-abII MEN pseudovirus
APPLICATIONS:	Research use only. Recommended amount: 50-100 µl/time. According to experimental conditions, it can be adjusted.
TAG:	ORF1a/b SEQ, M Gene, E Gene & N Gene
Main ingredient	glucose 、 KH ₂ PO ₄ 、 Na ₂ HPO ₄ 、 NaCl 、 KCl 、 pseudovirus
FORMULATION:	Liquid
PRODUCT:	>1 x 10 ⁷ copy/ml in 1 ml
STORAGE & STABILITY:	The product can be stored at -20°C or below for 6 months. Avoid repeated freezing and thawing cycles.



STORAGE

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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
 GTTTTTAAACGGGTTTGCGGTGTAAGTGCAGCCGTCTTACACCGTGCGGCACAGGCACTAGTACTGATGTCG
 TATACAGGGCTTTTGACATCTACAATGATAAAGTAGCTGGTTTTGCTAAATTCCTAAAACTAATTGTTGTCGCT
 TCCAAGAAAAGGACGAAGATGACAATTTAATTGATTCTTACTTTGTAGTTAAGAGACACACTTTCTCTAACTAC
 CAACATGAAGAAACAATTTATAATTTACTTAAGGATTGTCCAGCTGTTGCTAAACAT

2. ORF1 a/b II sequence

GCGGCCGCTTGGCACAACATGTTAAAACTGTTTATAGTGATGTAGAAAACCCTCACCTTATGGGTTGGGATTA
 TCCTAAATGTGATAGCCATGCCTAACATGCTTAGAATTATGGCCTCACTTGTTCTTGCTCGCAAACATACAAC
 GTGTTGTAGCTTGTACACCGTTTCTATAGATTAGCTAATGAGTGTGCTCAAGTATTGAGTGAAATGGTCATGT
GTGGCGGTTCACTATATGTTAAACCAGGTGGAACCTCATCAGGAGATGCCACAACCTGCTTATGCTAATAGTGT
TTAACATTTGTCAAGCTGTACGGCCAATGTTAATGCACTTTTATCTACTGATGGTAACAAAATTGCCGATAAG
 TATGTCCGCAATTTACAACACAGACTTTATGAGTGTCTCTATAGAAATAGAGATGTTGACACAGACTTTGTGAAT
 GAGTTTTACGCATATTTGCGTAAACATTTCTCAATGATGATACTCTCTGACGATGCTGTTGGGATCC

3. M Gene

ATGGCAGATTCCAACGGTACTATTACCGTTGAAGAGCTTAAAAAGCTCCTTGAACAATGGAACCTAGTAATAG
GTTTCCTATTCTTACATGGATTTGTCTTCTACAATTTGCCTATGCCAACAGGAATAGGTTTTTGTATATAATTA
GTTAATTTTCTCTGGCTGTTATGGCCAGTAACTTTAGCTTGTTTTGTGCTTGCTGCTGTTTACAGAATAAATTG
GATCACCGGTGGAATTGCTATCGCAATGGCTTGTCTTGTAGGCTTGATGTGGCTCAGCTACTTCATTGCTTCTTT
CAGACTGTTTGC GCGTACGCGTTCCATGTGGTCATTCAATCCAGAACTAACATTCTTCTCAACGTGCCACTCC
ATGGCACTATTCTGACCAGACCGCTTCTAGAAAAGTGAACCTCGTAATCGGAGCTGTGATCCTTCGTGGACATCTT
CGTATTGCTGGACACCATCTAGGACGCTGTGACATCAAGGACCTGCCTAAAGAAATCACTGTTGCTACATCACG
AACGCTTTTCTTATTACAAATTGGGAGCTTCGCAGCGTGTAGCAGGTGACTCAGGTTTTGCTGCATACAGTCGC
TACAGGATTGGCAACTATAAATTAACACAGACCATTCCAGTAGCAGTGACAATATTGCTTTGCTTGACAGTA
A

4. E Gene

ATGTA CTCA TTTCGTTTCGGAAGAG ACAGGTACGTTAATAGTTAATAGCGTACTTCTTTTTCTTGCTTTTCGTGGTA
TTCTTGCTAGTTACTAGCCATCCTTACTGCGCTTCGATTTGTGTGCGTACTGCTGCAATATGTTAACGTGAGT
CTTGTA AACCTTCTTTTTACGTTTACTCTCGTGTTAAAAATCTGAATTCTTCTAGAGTTCTGATCTTCTGGTCT
AA

5. N Gene

ATGTCTGATAATGGACCCCAAATCAGCGAAATGCACCCCGCATTACGTTTGGTGACCCTCAGATTCAACTG
GCAGTAACCAGAATGGAGAACGCAGTGGGGCGGATCAAAAACAACGTCGGCCCCAAGGTTTACCCAATAATA
CTGCGTCTTGTTACCGCTCTCACTCAACATGGCAAGGAAGACCTTAAATTCCTCGAGGACAAGGCGTTCC
AATTAACACCAATAGCAGTCCAGATGACCAAATTGGCTACTACCGAAGAGCTACCAGACGAATTCGTGGTGGT
GACGGTAAAATGAAAGATCTCAGTCCAAGATGGTATTTCTACTACCTAGGAACTGGGCCAGAAGCTGGACTTC
CCTATGGTGCTAACAAAGACGGCATCATATGGTTGCAACTGAGGGAGCCTTGAATACACCAAAAAGATCACAT
TGGCACCCGCAATCCTGCTAACAAATGCTGCAATCGTGCTACAACCTCCTCAAGGAACAACATTGCCAAAAGGC
TTCTACGCAGAAGGGAGCAGAGGGCGGAGTCAAGCCTCTTCTCGTTCCCTCATCACGTAGTCGCAACAGTTCA
AGAAATTCAACTCCAGGCAGCAGTAGGGGAACTTCTCCTGCTAGAATGGCTGGCAATGGCGGTGATGCTGCT
CTTGCTTTGCTGCTGCTTGACAGATTGAACCAGCTTGAGAGCAAAATGTCTGGTAAAGGCCAACAAACAACAA
GGCCAAACTGTCACTAAGAAATCTGCTGCTGAGGCTTCTAAGAAGCCTCGGC AAAACGTA CTGCCACTAAA
GCATACAATGTAACACAAGCTTTTCGGCAGACGTGGTCCAGAACAACCCAAAGGAAATTTTGGGGACCAGGA
ACTAATCAGACAAGGAACTGATTTACAAACATTGGCCGCAAATTGCACAATTTGCCCCAGCGCTTCAGCGTTC
TTCGGAATGTCGCGCATTGGCATGGAAGTCACACCTTCGGGAACGTGGTTGACCTACACAGGTGCCATCAAAT
TGGATGACAAAGATCCAAATTTCAAAGATCAAGTCATTTTGTGCTGAATAAGCATATTGACGCATACAAAACATTC
CCACCAACAGAGCCTAAAAAGGACAAAAAGAAGAAGGCTGATGAAACTCAAGCCTTACCGCAGAGACAGAA
GAAACAGCAA ACTGTGACTCTTCTCCTGCTGCAGATTTGGATGATTTCTCAAACAATTGCAACAATCCATGA
GCAGTGCTGACTCAACTCAGGCCTAA

REFERANCE

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.