

# FNV-SARS-CoV-2-abSMEN

Cat# PV020

Store at -20°C for 6 months

## INFORMATION

<b>DESCRIPTION:</b>	The partial ORF1a/b and S gene, M Gene, E gene and N gene coding sequence were cloned into retroviral vector by chemical synthesis to obtain FNV-SARS-CoV-2-abSMEN pseudovirus. The pseudovirus are prepared with using 293T. For the concentration and purification of the ultracentrifuge. For the FNV-SARS-CoV-2-abSMEN pseudovirus we used ultracentrifugation. Viral envelope of the FNV-SARS-CoV-2-abEN pseudovirus include the partial ORF1a/b and S gene, 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-abSMEN pseudovirus
<b>APPLICATIONS:</b>	Research Recommended amount: 50-100 µl/time. According to experimental conditions, it can be adjusted.
<b>TAG:</b>	ORF1a/b SEQ, 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 、 FNV-SARS-CoV-2-abSMEN 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

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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 eppendroft 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 (optional operation): 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. Virus inactivation treatment may lead to RNA explanation, please choose according to the needs of the experiment.
3. If you need to dilute the pseudovirus, you can choose the 1X PBS or physiological saline (0.9% NaCl).
4. Please rinse immediately with plenty of water when the pseudovirus accidentally splashed on eyes, skin or other body parts.
5. 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 sequence

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ATCGTGTTGTCTGTACTGCCGTTGCCACATAGATCATCCA
AATCCTAAAGGATTTTGTGACTTAAAAGGTAAGTATGTAC
AAATACCTACAACCTTGTGCTAATGACCCTGTGGGTTTTAC
ACTTAAAAACACAGTCTGTACCGTCTGCGGTATGTGGAAA
GGTTATGGCTGTAGTTGTGATCAACTCCGCGAACCCATGC
TTCAGTCAGCTGATGCACAATCGTTTTTAAACGGGTTTGC
GGTGTAAGTGCAGCCCGTCTTACACCGTGCGGCACAGGCA
CTAGTACTGATGTCGTATACAGGGCTTTTGACATCTACAA
TGATAAAGTAGCTGGTTTTGCTAAATTCCTAAAACTAAT
TGTTGTCGCTTCCAAGAAAAGGACGAAGATGACAATTTAA
TTGATTCTTACTTTGTAGTTAAGAGACACACTTTCTCTAA
CTACCAACATGAAGAAACAATTTATAATTTACTTAAGGAT
TGTCAGCTGTTGCTAAACAT
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### 2. E Gene

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ATGTAATCATTCGTTTCGGAAGAGACAGGTACGTTAATAG
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TTAATAGCGTACTTCTTTTTCTTGCTTCGTGGTATTCTT  
GCTAGTTACTAGCCATCCTTACTGCGCTTCGATTGTGT  
GCGTACTGCTGCAATATTGTTAACGTGAGTCTTGAAAAC  
CTTCTTTTTACGTTTACTCTCGTGTTAAAAATCTGAATTC  
TTCTAGAGTTCCTGATCTTCTGGTCTAA

### 3.N Gene

ATGTCTGATAATGGACCCCAAATCAGCGAAATGCACCCC  
GCATTACGTTTGGTGGACCCTCAGATTCAACTGGCAGTAA  
CCAGAATGGAGAACGCAGTGGGGCGCGATCAAAACAACGT  
CGGCCCAAGGTTTACCCAATAATACTGCGTCTTGTTCA  
CCGCTCTCACTCAACATGGCAAGGAAGACCTTAAATTCCC  
TCGAGGACAAGGCGTTCCAATTAACACCAATAGCAGTCCA  
GATGACCAAATTGGTACTACCGAAGAGCTACCAGACGAA  
TTCGTGGTGGTGACGGTAAAATGAAAGATCTCAGTCCAAG  
ATGGTATTTCTACTACCTAGGAACTGGGCCAGAAGCTGGA  
CTTCCCTATGGTGCTAACAAAGACGGCATCATATGGGTTG  
CAACTGAGGGAGCCTTGAATACACCAAAGATCACATTGG  
CACCCGCAATCCTGCTAACAAATGCTGCAATCGTGCTACAA  
CTTCCTCAAGGAACAACATTGCCAAAAGGCTTCTACGCAG  
AAGGGAGCAGAGGCGGCAGTCAAGCCTTCTCGTTCCTC  
ATCACGTAGTCGCAACAGTTCAAGAAATTCAACTCCAGGC  
AGCAGTAGGGGAACTTCTCCTGCTAGAATGGCTGGCAATG  
GCGGTGATGCTGCTTTGCTTTGCTGCTGCTTGACAGATT  
GAACCAGCTTGAGAGCAAAATGTCTGGTAAAGGCCAACAA  
CAACAAGGCCAAACTGTCACTAAGAAATCTGCTGCTGAGG  
CTTCTAAGAAGCCTCGGCAAAACGTAAGTCCACTAAAGC  
ATACAATGTAACACAAGCTTTCGGCAGACGTGGTCCAGAA  
CAAACCCAAGGAAATTTTGGGGACCAGGAACTAATCAGAC  
AAGGAACTGATTACAAACATTGGCCGCAAATTGCACAATT  
TGCCCCAGCGCTTACGCTTCTCGGAATGTCGCGCATT  
GGCATGGAAGTCACACCTTCGGGAACGTGGTTGACCTACA  
CAGGTGCCATCAAATTGGATGACAAAGATCCAAATTTCAA  
AGATCAAGTCATTTTCTGTAATAAGCATATTGACGCATAC  
AAAACATTCCCACCAACAGAGCCTAAAAAGGACAAAAGA  
AGAAGGCTGATGAACTCAAGCCTTACCGCAGAGACAGAA  
GAAACAGCAAACCTGTGACTCTTCTCCTGCTGCAGATTTG  
GATGATTTCTCAAACAATTGCAACAATCCATGAGCAGTG  
CTGACTCAACTCAGGCCTAA

#### 4.M Gene

GGCAGATTCCAACGGTACTATTACCGTTGAAGAGCTTAAA  
AAGCTCCTTGAACAATGGAACCTAGTAATAGGTTTCCTAT  
TCCTTACATGGATTTGTCTTCTACAATTTGCCTATGCCAA  
CAGGAATAGGTTTTTGTATATAATTAAGTTAATTTTCCTC  
TGGCTGTTATGGCCAGTAACTTTAGCTTGTTTTGTGCTTG  
CTGCTGTTTACAGAATAAATTGGATCACCGGTGGAATTGC  
TATCGCAATGGCTTGTCTTGTAGGCTTGATGTGGCTCAGC  
TACTTCATTGCTTCTTTCAGACTGTTTGCGCGTACGCGTT  
CCATGTGGTCATTCAATCCAGAACTAACATTCTTCTCAA  
CGTGCCACTCCATGGCACTATTCTGACCAGACCGCTTCTA  
GAAAGTGAACCTCGTAATCGGAGCTGTGATCCTTCGTGGAC  
ATCTTCGTATTGCTGGACACCATCTAGGACGCTGTGACAT  
CAAGGACCTGCCTAAAGAAATCACTGTTGCTACATCACGA  
ACGCTTTCTTATTACAAATTGGGAGCTTCGCAGCGTGTAG  
CAGGTGACTCAGGTTTTGCTGCATACAGTCGCTACAGGAT  
TGGCAACTATAAATTAACACAGACCATTCCAGTAGCAGT  
GACAATATTGCTTTGCTTGTACAGTAA

#### 5.S Gene

GTTCTTGTTAAACAACCTAAACGAACAATGTTTGTTTTCTT  
GTTTTATTGCCACTAGTCTCTAGTCAGTGTGTTAATCTTA  
CAACCAGAACTCAATTACCCCTGCATACACTAATTCTTT  
CACACGTGGTGTATTACCCTGACAAAGTTTTTCAGATCC  
TCAGTTTTACATTCAACTCAGGACTTGTTCTTACCTTTCT  
TTTCCAATGTTACTTGGTTCATGCTATACATGTCTCTGG  
GACCAATGGTACTAAGAGGTTTGATAACCCTGTCCTACCA  
TTAATGATGGTGTATTATTTGCTTCCACTGAGAAGTCTA  
ACATAATAAGAGGCTGGATTTTTGGTACTACTTTAGATTC  
GAAGACCCAGTCCCTACTTATTGTTAATAACGCTACTAAT  
GTTGTTATTAAGTCTGTGAATTTCAATTTGTAATGATC  
CATTTTTGGGTGTTTATTACCACAAAACAACAAAAGTTG  
GATGGAAAGTGAGTTCAGAGTTTATTCTAGTGCGAATAAT  
TGCACTTTTGAATATGTCTCTCAGCCTTTTCTTATGGACC  
TTGAAGGAAAACAGGGTAATTTCAAAAATCTTAGGGAATT  
TGTGTTAAGAATATTGATGGTTATTTAAAATATATTCT  
AAGCACACGCCTATTAATTTAGTGCGTGATCTCCCTCAGG  
GTTTTTCGGCTTTAGAACCATTGGTAGATTTGCCAATAGG

TATTAACATCACTAGGTTTCAAACCTTACTTGCTTTACAT  
AGAAGTTATTTGACTCCTGGTGATTCTTCTTCAGGTTGGA  
CAGCTGGTGCTGCAGCTTATTATGTGGGTTATCTTCAACC  
TAGGACTTTTTCTATTAATAATATAATGAAAATGGAACCATT  
ACAGATGCTGTAGACTGTGCACTTGACCCTCTCTCAGAAA  
CAAAGTGACGTTGAAATCCTTCACTGTAGAAAAAGGAAT  
CTATCAAACCTTAACTTTAGAGTCCAACCAACAGAATCT  
ATTGTTAGATTTCTAATATTACAACTTGTGCCCTTTTG  
GTGAAGTTTTTAACGCCACCAGATTTGCATCTGTTTATGC  
TTGGAACAGGAAGAGAATCAGCAACTGTGTTGCTGATTAT  
TCTGTCCTATATAATTCCGCATCATTTTCCACTTTTAAGT  
GTTATGGAGTGTCTCCTACTAAATTAATGATCTCTGCTT  
TACTAATGTCTATGCAGATTCATTTGTAATTAGAGGTGAT  
GAAGTCAGACAAATCGCTCCAGGGCAAACCTGGAAAGATTG  
CTGATTATAATTATAAATTACCAGATGATTTTACAGGCTG  
CGTTATAGCTTGGAATTCTAACAATCTTGATTCTAAGGTT  
GGTGGTAATTATAA

### **PRODUCT USE LIMITATION**

These products are intended for research use only.