

# SARS-CoV-2 Omicron(BQ.1.1) Spike Gene ORF cDNA clone expression plasmid



Catalog Number: NVG0916-UT

## General Information

Official Symbol :	Spike
Synonym :	Spike
Source :	SARS-CoV-2
cDNA Size:	3807bp(cDNA Size= Gene + linker +Tags)
Plasmid	pCMV3-SARS-CoV-2-Spike(S1+S2)-long(BQ.1.1)

## Description

Lot : Please refer to the label on the tube

### Sequence Description :

A number of silent mutations were introduced into the DNA sequence in order to increase its protein expression level in mammalian cell system. The translated amino acid sequence is identical with YP\_009724390.1(T19I, del24-26, A27S, del69-70, G142D, V213G, G339D, R346T, S371F, S373P, S375F, T376A, D405N, R408S, K417N, N440K, K444T, L452R, N460K, S477N, T478K, E484A, F486V, Q498R, N501Y, Y505H, D614G, H655Y, N679K, P681H, N764K, D796Y, Q954H, N969K).

Restriction site: KpnI + XbaI(6.1kb+3.81kb)

Vector : pCMV3-untagged

### Quality control :

The plasmid is confirmed by full-length sequencing with primers in the sequencing primer list.

### Sequencing primer list :

pCMV3-F: 5' CAGGTGTCCACTCCCAGGTCCAAG 3'

pcDNA3-R : 5' GGCAACTAGAAGGCACAGTCGAGG 3'

Or

Forward T7 : 5' TAATACGACTCACTATAGGG 3'

ReverseBGH : 5' TAGAAGGCACAGTCGAGG 3'

Customers can order the primer pair from any oligonucleotide supplier.

### Shipping carrier :

Each tube contains approximately 10 µg of lyophilized plasmid.

### Storage :

The lyophilized plasmid can be stored at ambient temperature for three months.

## Plasmid Resuspension protocol

1. Centrifuge at  $5,000 \times g$  for 5 min.
2. Carefully open the tube and add 100 µl of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin to concentrate the liquid at the bottom. Speed is less than  $5000 \times g$ .
5. Store the plasmid at  $-20^\circ\text{C}$ .

### The plasmid is ready for:

- Restriction enzyme digestion
- PCR amplification
- *E. coli* transformation
- DNA sequencing

### *E.coli* strains for transformation (recommended but not limited)

Most commercially available competent cells are appropriate for the plasmid, e.g. TOP10, DH5α and TOP10F'.

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## Vector Information

All of the pCMV vectors are designed for high-level stable and transient expression in mammalian hosts. High-level stable and non-replicative transient expression can be carried out in most mammalian cells. The vectors contain the following elements:

- Human enhanced cytomegalovirus immediate-early (CMV) promoter for high-level expression in a wide range of mammalian cells.
- Hygromycin resistance gene for selection of mammalian cell lines.
- A Kozak consensus sequence to enhance mammalian expression.

Vector name	pCMV3-untagged
Vector size	6223bp
Vector Type	Mammalian Expression Vector
Expression Method	Constitutive ,Stable / Transient
Promoter	CMV
Bacterial Resistance	Ampicillin
Selection In Cells	Hygromycin
Protein tag	None

## Physical Map of Plasmid :

