General Information

**Official Symbol:** Spike

**Synonym:** coronavirus spike; cov spike; ncv RBD; ncv s1; ncv s2; ncv spike; NCP-CoV RBD; NCP-CoV s1; NCP-CoV s2; NCP-CoV Spike; novel coronavirus RBD; novel coronavirus s1; novel coronavirus s2; novel coronavirus spike; RBD; S1; S2; Spike RBD

**Source:** 2019-nCoV

**cDNA Size:** 1362bp (cDNA Size = Gene + linker + Tags)

**Plasmid:** pCMV3-2019-nCOV-RBD-OFPSpark

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 QHD43416.1 (319-541aa)

**Restriction site:** KpnI + XbaI (6kb + 1.36kb)

**Vector:** pCMV3-C-OFPSpark

**Quality control:**

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

**Sequencing primer list:**

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<tr>
<td>pCMV3-F:</td>
<td>5’ CAGGTGTCCACTCCCAGGTCCAAG 3’</td>
</tr>
<tr>
<td>pcDNA3-R:</td>
<td>5’ GGCAACTAGAAGGCACAGTCGAGG 3’</td>
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Or

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<tr>
<td>Forward T7:</td>
<td>5’ TAATACGACTCACTATAGGG 3’</td>
</tr>
<tr>
<td>ReverseBGH:</td>
<td>5’ TAGAAGGCCCAGTCGAGG 3’</td>
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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-.
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.

Physical Map of Plasmid:

- Vector name: pCMV3-C-OFPSpark
- Vector size: 6806bp
- Vector Type: Mammalian Expression Vector
- Expression Method: Constiutive, Stable / Transient
- Promoter: CMV
- Bacterial Resistance: Kanamycin
- Selection In Cells: Hygromycin
- Protein tag: OFPSpark