



Introduction of ABclonal 2019-nCov Pseudogene

The timely and accurate diagnosis of suspected cases is a key part in controlling the COVID-19 outbreak. For now, nucleic acid detection is the gold standard for confirmation of the disease.

The entire nucleic acid detection process includes several steps:

1. Collect specimen from suspected individuals.
2. Extract viral nucleic acid from the collected specimen.
3. Reverse transcribe RNA into cDNA.
4. Prepare qPCR reaction system.
5. Detect/Quantify viral nucleic acid using a real-time PCR machine.

Failure in any one of these steps would cause misdiagnosis. However, introducing pseudogenes as a positive control could resolve some of the possible experimental errors.

ABclonal developed the 2019-nCov Pseudogene series based on open sequence information (CDC: <https://www.cdc.gov/coronavirus/2019-nCoV/lab/index.html>) of the viral genome, and cloned the sequence into a lentivirus system. The pseudogene products mimic SARS-CoV-2's RNA while having higher biosafety and stability. They could be used as the standard during viral nucleic acid detection; for quality control of testing procedures; to simulate positive specimens during IVD development, and more.

2019-nCoV lentivirus products: including S, E, M, N, ORF1ab and other genes.

Product Name	Description	Catalogue No.	Size	No. of copies contained
2019-nCoV-S	3822bp, ORF2	ABC-RK20190	1ml	1E7/1E8
2019-nCoV-E	228bp, ORF4	ABC-RK20191	100 µl/1ml	1E7/1E8
2019-nCoV-M	669bp, ORF5	ABC-RK20192	100 µl/1ml	1E7/1E8
2019-nCoV-N	1260bp, ORF9	ABC-RK20193	100 µl/1ml	1E7/1E8
2019-nCoV-ORF3a	828bp	ABC-RK20194	100 µl/1ml	1E7/1E8
2019-nCoV-ORF6	186bp	ABC-RK20195	100 µl/1ml	1E7/1E8
2019-nCoV-ORF7a	366bp	ABC-RK20196	100 µl/1ml	1E7/1E8
2019-nCoV-ORF8	366bp	ABC-RK20197	100 µl/1ml	1E7/1E8
2019-nCoV-ORF10	117bp	ABC-RK20198	100 µl/1ml	1E7/1E8
2019-1abN	739bp, containing 298 bp from 1ab and 441 bp from N	ABC-RK20199	100 µl/1ml	1E7/1E8