

# COVID-19 PoaCheck™

## Rapid Real-time OneStep LAMP detection kit for COVID-19

**High specificity test:** Compared to the general PCR method to recognize two positions, LAMP has high specificity because the primers are designed to recognize six gene positions.

**Economic test:** Due to the characteristic of isothermal amplification, there is no loss or damage of DNA due to temperature change. The amplification efficiency is very high and the temperature control is unnecessary, it makes the response time becomes short (65°C, 20-30 min).

**Easy-to-use master mix:** just adding template and Primer Mix/Dye.

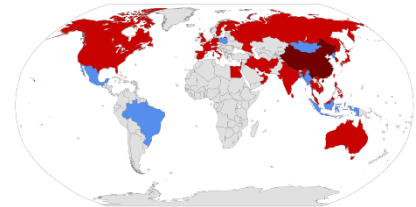
**Positive control included (Plasmid)**

Made in South Korea



**BIOPOA**

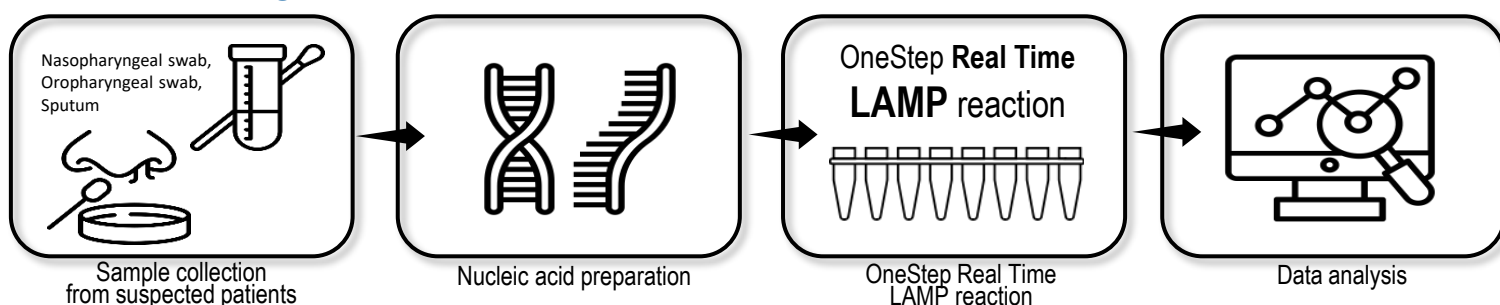
# COVID-19 PoaCheck™



## Rapid Real-time OneStep LAMP detection kit for COVID-19 in 30 min

**COVID-19 PoaCheck (Orf1a gene) kit** was designed to amplify the Orf1a target gene of COVID-19 (2019-nCoV) separately in the isothermal reaction condition. LAMP (Loop-Mediated Isothermal Amplification) is consist of *Bst* polymerase which has the strand displacement DNA synthesis and 3 primer set. First, the inner primer binds to the DNA and elongates, causing strand displacement, and the first strand is released. The loop structure is formed from the 5'-end of the separated single strand, and the same process is repeated at the 3'-end and the loop structure is extended. To perform LAMP, three primers designed specifically to recognize the six positions of the gene to be amplified are used. Compared to the general PCR recognition of two positions, LAMP has a very high specificity for the target DNA. The primers used in this product are designed to amplify the Orf1a gene of COVID-19.

### Simple testing process



### KIT contents & Specification



One test kit contains

No	Name	Cap	Q'ty / 100 rxn
1	COVID-19 Orf1a gene primer mixture	Orf	300 µL, 1 ea
2	LAMP reaction mixture	Mix	1 mL, 1 ea
3	Positive control (Orf1a)	OC	30 µL, 1 ea
4	Molecular grade water	DW	1 mL, 1ea
5	LAMP dye (FAM)	Dye	40 µL, 1 ea

Item	Specification
Detection target	2019-nCoV (COVID-19)
Target gene	Orf1a
Detection technology	Real-Time OneStep LAMP
Specimen type	Nasopharyngeal swab, Oropharyngeal swab, Sputum
Compatible instruments	CFX96™ Real-Time PCR System (BioRad) ABi7500/7500 Fast Real Time PCR system (Applied Biosystems)
Running Time	20-30 mins
KIT Unit	100 Tests/KIT

### Assay performance

Performance test	Comparison reagent (Allplex™ 2019-nCoV Assay)		Total	
	Positive	Negative		
Test reagent (COVID-19 PoaCheck™)	Positive	73	0	73
	Negative	1	80	81
<b>Total</b>	<b>74</b>	<b>80</b>	<b>154</b>	
Sensitivity			98.6%	
Specificity			100%	
Concordance ratio			99.4%	

#### Sales information of COVID-19 PoaCheck™

- Same pricing policy basis on Korea FOB in all countries for export except Africa
- Minimum Order Quantity (MOQ): 500 kits / order
- Storage condition: under -15°C / Storage expiration duration: upto 6 months

- Tested by BioPOA, 2020

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