Synbio Technologies
Genes for Life

Certificate of Analysis

SARS-CoV-2 Real-time RT-PCR Detection Assay

Materials:

Catalog# SYN202000		
Reagent Label	***Part #***	***Description***
SARS-CoV-2_N1	ST202001	SARS-CoV-2_N1 Combined Primer/Probe Mix
SARS-CoV-2_N2	ST202002	SARS-CoV-2_N2 Combined Primer/Probe Mix
SARS-CoV-2_N3	ST202003	SARS-CoV-2_N3 Combined Primer/Probe Mix
RP	ST202004	Human RNase P Forward Primer/Probe Mix
SARS-CoV-2 Positive Control (Plasmid DNA)	ST202005	SARS-CoV-2_N, Human RNase P
2X Reaction Buffer Mix	ST202006	Buffer, dNTP
Enzymes Mix	ST202007	UDG, Taq DNA Polymerase, Reverse
Nuclease-free Water	ST202008	Nuclease-free

PCR Reaction:

Step #	***Reagent***	***Vol. of Reagent Added per Reaction***
1	Nuclease-free Water	N x 1.5 µL
2	Combined Primer/Probe Mix	N x 1.5 µL
3	2X Reaction Buffer Mix	N x 10.0 µL
4	Enzymes Mix	N x 2.0 µL
5	SARS-CoV-2 Positive Control (Plasmid DNA)	N x 5.0 µL
	Total Volume	N x 20.0 µL

PCR Protocol:

Step	***Temperature***	***Time***	***Cycle #***
UDG digestion	25℃	2min	1
Reverse transcript	50℃	15min	1
Pre-denature	95℃	2min	1
Denature	95℃	10s	45
Amplification	55℃	30s	

Real-time qPCR Detection Data:

Instrument: ABI 7500 Real-time PCR instrument

Positive Control Materials: DNA Plasmid

Plasmid Concentration: concentration gradient dilution of 10^5, 10^3, 10^2 and 10^1 copies /µL respectively

Result: 10^3 copies /μL positive control: Ct value < 20

NTC: NA