

Supplementary Note 1: Definition of COVID-19 Case

We use the term “case” to denote an individual with laboratory confirmed SARS-CoV-2 infection regardless of clinical symptoms. This aligns with the World Health Organization’s (WHO) definition of a “confirmed case” as “a person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.”(1)

References:

1. World Health Organization. 2020. Global surveillance for COVID-19 caused by human infection with COVID-19 virus. Interim guidance, World Health Organization. [https://www.who.int/publications-detail/global-surveillance-for-human-infection-with-novel-coronavirus-\(2019-ncov\)](https://www.who.int/publications-detail/global-surveillance-for-human-infection-with-novel-coronavirus-(2019-ncov))

Primer / Probe	Sequence (5' to 3')	Target	Number of SARS-CoV2 sequences with mismatches in primer/probe sites* (n=180)
RdRP_SARsR-Forward	GTGARATGGTCATGTGTGGCGG	RdRp (Corman)	
RdRP_SARsR-Reverse	CARATGTTAAASACACTATTAGCATA		
RdRP_SARsR-Probe	FAM- CAGGTGGAACCTCATCAGGAGATGC-BHQ1		
N_Sarbeco_Forward	CACATTGGCACCCGCAATC	N-gene (Corman)	1
N_Sarbeco_Reverse	GAGGAACGAGAAGAGGCTTG		
N_Sarbeco_Probe	FAM- ACTTCCTCAAGGAACAACATTGCCA-BHQ1		
E_Sarbeco_Forward	ACAGGTACGTTAATAGTTAATAGCGT	E-gene (Corman)	
E_Sarbeco_Reverse	ATATTGCAGCAGTACGCACACA		1
E_Sarbeco_Probe	FAM- ACACTAGCCATCCTTACTGCGCTTCG-BHQ1		1
nCoV_2019 Forward	CAAATTCTATGGTGGTTGGCACA	RdRp (UW)	
nCoV_2019 Reverse	GGCATGGCTCTATCACATTTAGG		
CoV_Probe	FAM- ATAATCCCAACCCATRAG-MGB		
EXO Forward	GGCGGAAGAACAGCTATTGC	Jellyfish gene (internal control)	N/A
EXO Reverse	GGAACCTAAGACAAGTGTGTTTATGG		N/A
EXO Probe	VIC- AACGCCATCGCACAAT-MGB		N/A
CDC N1 Forward	GACCCCAAAATCAGCGAAAT	N-gene (CDC)	1
CDC N1 Reverse	TCTGGTACTGCCAGTTGAATCTG		
CDC N1 Probe	FAM- ACCCCGCATTACGTTTGGTGGACC-BHQ1		1
CDC N2 Forward	TTACAAACATTGGCCGCAAA		
CDC N2 Reverse	GCGCGACATTCCGAAGAA		
CDC N2 Probe	FAM- ACAATTTGCCCCAGCGCTTCAG-BHQ1		1
CDC N3 Forward	GGGAGCCTTGAATACACCAAAA		8
CDC N3 Reverse	TGTAGCACGATTGCAGCATTG		
CDC N3 Probe	FAM- AYCACATTGGCACCCGCAATCCTG-BHQ1		1
RNAseP Forward	AGATTTGGACCTGCGAGCG	RNAseP (CDC internal control)	N/A
RNAseP Reverse	GAGCGGCTGTCTCCACAAGT		N/A
RNAseP Probe	FAM- TTCTGACCTGAAGGCTCTGCGCG-BHQ1		N/A

Supplementary Table 1: Primer and probe sets used in the current study. A total of 180 SARS-CoV2 sequences (GISAID) were compared to identify polymorphisms in primer/probe sequences.

*Total number of sequences with SNP in primer/probe region. Blank cells represent 100% homology.

N/A: Not applicable. EXO and RNAseP have no homology with SARS-CoV2 sequences.

FAM: 6-carboxyfluorescein

VIC: 2'-chloro-7'-phenyl-1,4-dichloro-6-carboxy-fluorescein

BHQ1: Black Hole Quencher-1

MGB: Minor Groove Binder