



Research Use Only CDC Influenza SARS-CoV-2 (Flu SC2) Multiplex Assay Real-Time RT-PCR Primers and Probes

NOT FOR VIRAL TESTING USE

Reagents manufactured from these sequences may not be used for viral testing under FDA's authorization of the Flu SC2 Multiplex Assay.

Only primers and probes labeled for EUA use and distributed by the [International Reagent Resource](#) may be used for viral testing with the Flu SC2 Multiplex Assay.

These sequences are intended to be used for the purposes of respiratory virus surveillance and research. The recipient agrees to use them in compliance with all applicable laws and regulations. Every effort has been made to assure the accuracy of the sequences, but CDC cannot provide any warranty regarding their accuracy. The recipient may acknowledge the source of sequences in any oral presentations or written publications concerning the research project by referring to the Genomics and Diagnostics Team, Virology Surveillance and Diagnosis Branch, Influenza Division, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, GA, USA.

DDIDNCIRDRespiratoryPanelSARS2FluAB@cdc.gov.

Tube 1: Flu SC2 Multiplex Assay: Forward and Reverse Primers

Name	Description	Oligonucleotide Sequence (5' to 3')	Concentration /Tube
InfA-F	InfA For1	CAA GAC CAA TCY TGT CAC CTC TGA C	3.33 μ M
	InfA For2	CAA GAC CAA TYC TGT CAC CTY TGA C	3.33 μ M
InfA-R	InfA Rev1	GCA TTY TGG ACA AAV CGT CTA CG	5.00 μ M
	InfA Rev2	GCA TTT TGG ATA AAG CGT CTA CG	1.67 μ M
InfB-F	InfB For	TCC TCA AYT CAC TCT TCG AGC G	6.67 μ M
InfB-R	InfB Rev	CGG TGC TCT TGA CCA AAT TGG	6.67 μ M
SC2-F	SC2 For	CTG CAG ATT TGG ATG ATT TCT CC	6.67 μ M
SC2-R	SC2 Rev	CCT TGT GTG GTC TGC ATG AGT TTA G	6.67 μ M
RP-F	RnaseP For	AGA TTT GGA CCT GCG AGC G	6.67 μ M
RP-R	RnaseP Rev	GAG CGG CTG TCT CCA CAA GT	6.67 μ M

**Tube 2: Flu SC2 Multiplex Assay: Probes**

Name	Description	Oligonucleotide Sequence (5'>3')	Concentration /Tube
InfA-P	InfA Probe ¹	5'-/5FAM/TGC AGT CCT /ZEN/ CGC TCA CTG GGC ACG/3IABkFQ/-3'	1.67 µM
InfB-P	InfB Probe ²	5'-/5YakYel/CCA ATT CGA/ZEN/ GCA GCT GAA ACT GCG GTG/3IABkFQ/-3'	1.67 µM
SC2-P	SC2 Probe ³	5'-/5TexRd-XN/ATT GCA ACA/TAO/ ATC CAT GAG CAG TGC TGA CTC/3IAbRQSp/-3'	1.67 µM
RP-P	RnaseP Probe ⁴	5'-/5CY5/TTC TGA CCT /TAO/ GAA GGC TCT GCG CG/3IAbRQSp/-3'	1.67 µM

¹ Probe labeled at the 5' end with the reporter molecule 6-carboxyfluorescein (FAM), with a ZEN™ quencher between the 9th and 10th nucleotide, and with an Iowa Black FQ quencher (IABkFQ) at the 3' end (Integrated DNA Technologies, Coralville, IA). InfA probe and primer sequences are identical to InfA sequences in the FDA-cleared CDC Human Influenza Real-Time RT-PCR Diagnostic Panel (K200370).

² Probe labeled at the 5' end with the Yakima Yellow (YakYel), with a ZEN™ quencher between the 9th and 10th nucleotide, and with an Iowa Black FQ quencher (IABkFQ) at the 3' end (Integrated DNA Technologies, Coralville, IA). Probe and primer sequences are identical to InfB sequences in the FDA-cleared CDC Human Influenza Virus Real-Time RT-PCR Detection and Characterization Panel (K080570).

³ Probe labeled at the 5'-end with the Texas Red-XN (TexRd-XN), with a TAO quencher between the 9th and 10th nucleotide, and with an Iowa Black RQ quencher (IAbRQSp) at the 3' end (Integrated DNA Technologies, Coralville, IA).

⁴ Probe labeled at the 5'-end with the CY5 reporter, with a TAO quencher between the 9th and 10th nucleotide, and with an Iowa Black RQ quencher (IAbRQSp) at the 3' end (Integrated DNA Technologies, Coralville, IA).

Note: Oligonucleotide sequences are subject to future changes as the SARS-CoV-2 viruses evolve.

Last updated: December 3, 2020