Supporting Information

Long-Term Preservation of SARS-CoV-2 RNA in Silk for Downstream RT-PCR Tests

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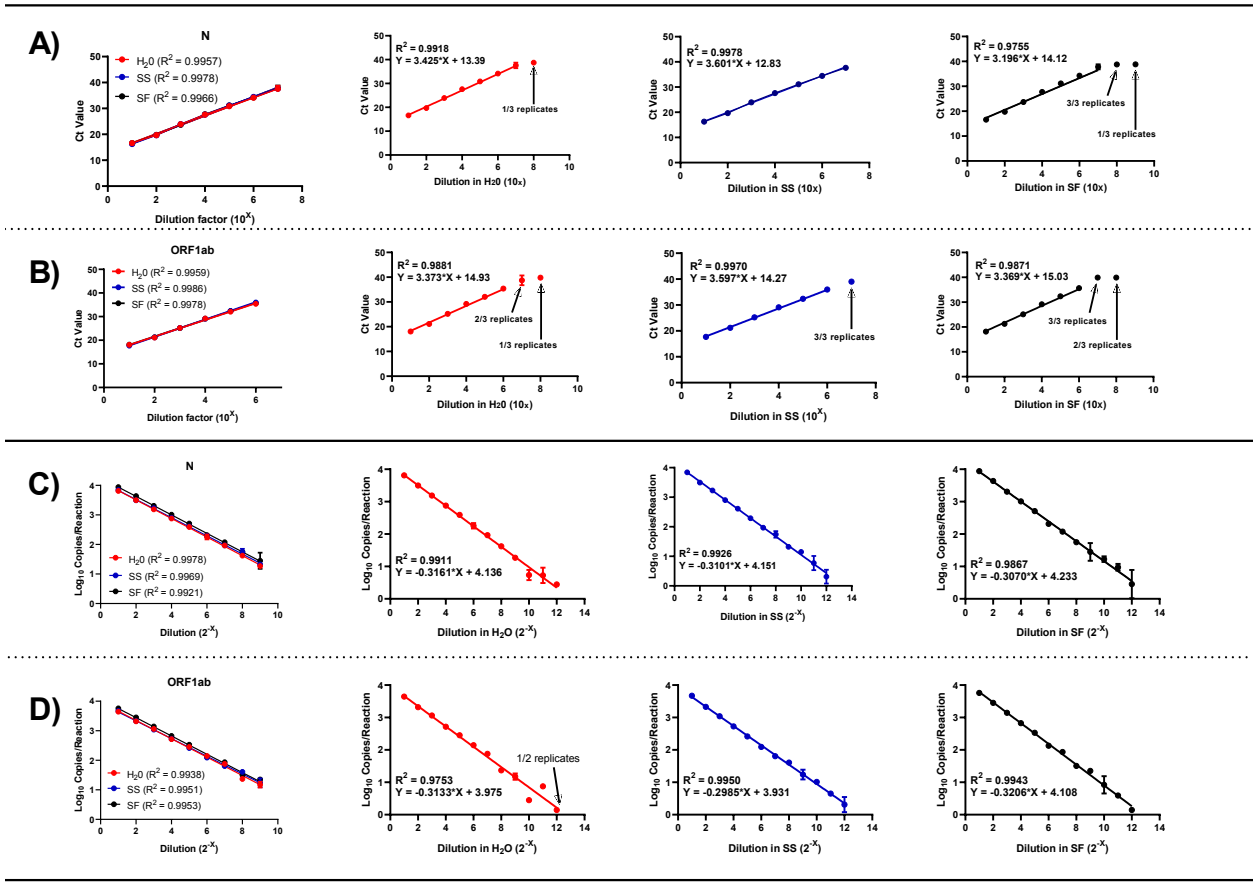

Figure S1: Effect of silk on RT-qPCR and RT-ddPCR. N gene (A) and ORF1ab (B) RT-qPCR Ct Values after SARS-CoV-2 RNA was spiked in distilled ddH_2O, SS, and SF. RNA spiked in SF could be detected even in lower concentrations compared to the SS and ddH_2O groups. N gene (C) and ORF1ab (D) RT-ddPCR results in log_{10} copies/reaction after SARS-CoV-2 RNA was spiked in ddH_2O, SS, and SF. In all assays, silk did not interfere with the general detection results.

Table S1: China CDC primer and probe sequence for SARS-CoV-2.

Target		Sequence 5' to 3'	Probe dye(s)
ORF1ab	Forward	CCCTGTGGGTTTTACACTTAA	5'- FAM and BHQ1-3'
	Reverse	ACGATTGTGCATCAGCTGA	
	Probe	CCGTCTGCGGTATGTGGAAAGGTTATGG	
N	Forward	GGGGAACTTCTCCTGCTAGAAT	5'- HEX and BHQ1-3'
	Reverse	CAGACATTTTGCTCTCAAGCTG	
	Probe	TTGCTGCTGCTTGACAGATT	

Table S2: RT-PCR diagnostic assays used to assess the preserved SARS-CoV-2 reference standard.

Kit	Assay Name	Company	Eligibility	Claimed LoD (Copies/ml)		Measured LoD (Copies/ml)	
				ORF1ab	N	ORF1ab	N
A	Novel Coronavirus (2019-nCoV) Nucleic Acid Diagnostic Kit (PCR-Fluorescence Probing)	Sansure Biotech	WHO EUL China NMPA	200	200	175.04	157.53
B	Detection Kit for 2019-nCov nucleic acid (Fluorescence PCR)	Anlong Gene	China NMPA	200	-	84.81	-
C	Novel coronavirus (2019-nCoV) nucleic acid detection kit (fluorescence PCR method)	Uni-medica	China NMPA	200	-	136.04	-
D	ANDiS FAST SARS-CoV-2 RT-qPCR Detection Kit	3DMed	China NMPA	200	200	193.19	168.30

WHO EUL – World Health Organization Emergency Use Listing; NMPA - National Medical Products Administration