

## Tracing Viruses in Public Spaces with ABL Solid Surface Collection Kit and Ultragene® ABL qPCR Kits

## G. Bastin<sup>1</sup>, M. Regad<sup>2</sup>, E. Schoverer<sup>3</sup>, C. Sayada<sup>4</sup>, A. Florentin<sup>2</sup>, S. Mohamed<sup>1</sup>



<sup>1</sup>ABL FRANCE,

<sup>2</sup>CHRU-Nancy, Département territorial d'hygiène et de prévention du risque infectieux,

<sup>3</sup>CHRU-Nancy, Laboratoire de Virologie, Nancy, (France); Université de Lorraine, CNRS, LCPME, Nancy (France),

<sup>4</sup>ABL LUXEMBOURG

## Introduction

Since SARS-CoV-2 emergence, virus tracing in public space has emerged as a major concern to prevent virus spread. Therefore, in order to lead studies to monitor and help breaking contamination chains, ABL diagnostics company sought out to develop a surface collection kit combined with very sensitive Ultragene® qPCR kits to detect traces amount of viral genome.



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- Rnase P was detected in most surfaces of the room at the hospital.
- SARS-CoV-2 was detected on several locations of the bedroom of the patient covid positive.

## Methods

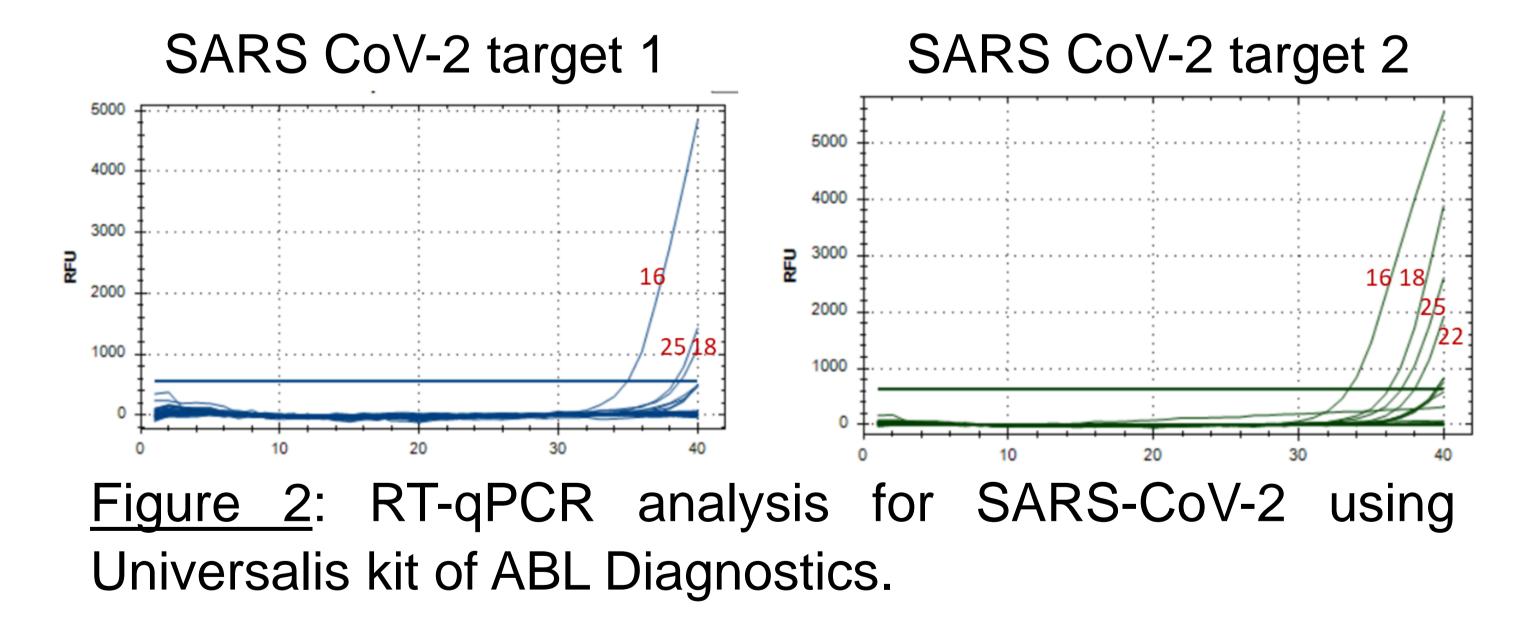
 The collection of viral particles was performed by swiping 25 cm<sup>2</sup> of surfaces following World Health Organisation recommendations. Swab <u>Table 1</u>: Summary RT-qPCR analysis for SARS-CoV-2 using Universalis kit of ABL Diagnostics.

Surface ID	Surface description	SARS-CoV-2	Rnase P
12	Window handle	-	+/-
13	Edge window 1	-	+
14	Edge window 2	-	++
15	Rising patient tablet		+/-
16	Plastic drinking glass	+++	+++
17	Armrest of armchair		++
18	Door knob bathroom	+++	++
19	Bathroom tap	-	+++
20	Stetoscope	_	+
21	Edge sink bathroom	+/-	++
22	bathroom helping handle	+/-	+
23	Bed Side table	++	+
24	Wall separation bathroom	_	+
25	Eating table	++	++

was then dipped in an ABL solution featuring viral inactivation and genome preservation.

 Samples were conserved at room temperature for 48h prior nucleic acid extraction and analysis using Ultragene® qPCR kits of ABL Diagnostics company.





Discussion



<u>Figure 1</u>: Hospital bedroom which hosted a patient infected by SARS-CoV-2. The surfaces labelled with numbers were monitored for viral contamination.

- This new ABL diagnostic collection kit combined with Ultragene® qPCR kits could help developing disinfection protocols adapted for eliminating viral contamination and the associated risks in public spaces -hospitalsretirements facilities-.
- This kits could also be valuable for tracing other viruses, bacteria and fungi

Contact information: Sofiane Mohamed, PhD: <u>s.mohamed@ablsa.com</u>