

Detection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and its first variants in fourplex real-time quantitative reverse transcription-PCR assays.

Mathieu Durand², Philippe Thibault², Simon Lévesque^{3,4}, Ariane Brault¹, Alex Carignan³, Louis Valiquette³, Philippe Martin³, and Simon Labbé^{1*}

¹Département de Biochimie et de Génomique Fonctionnelle, Faculté de médecine et des sciences de la santé, Université de Sherbrooke, Sherbrooke, QC, J1E 4K8, Canada.

²Plateforme RNomique et de Génomique Fonctionnelle, Université de Sherbrooke, Sherbrooke, QC, Canada.

³Département de Microbiologie et d'Infectiologie, Faculté de médecine et des sciences de la santé, Université de Sherbrooke, Sherbrooke, QC, J1E 4K8, Canada.

⁴Laboratoire de Microbiologie, Centre Intégré Universitaire de Santé et de Services Sociaux (CIUSSS) de l'Estrie, Centre Hospitalier Universitaire de Sherbrooke (CHUS), Sherbrooke, QC, J1H 5N4, Canada.

*Corresponding author : Simon Labbé

E-mail: Simon.Labbe@USherbrooke.ca

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Legend

Fig. S1. Sequences of the synthetic oligomers used to create the indicated gBlocks. Each targeted SARS-CoV-2 region from the Orflab, Spike, E (envelope), and N (nucleocapsid) genes (according to the Wuhan-Hu-1 genome reference sequence and mutant derivatives) were designed accompanied with a T7 promoter sequence (**bold**) at their 5'ends.

Supplemental Figure 1. Sets of oligonucleotide primers

Orflab forward and reverse (strain L)

5'-**TAATACGACTCACTATAGG**ATGGTGGTCACTCGTACAGATACTCACAGATACTTGTGCTAACAAACATGCTGATTGACACATGGTTAGCC
AGCGTGGTGGTAGTTACTAATGACAAAGCTGCCATTGATTGCTGCAGTCATAACA-3'
5'-TGTATGACTGCAGCAATCAATGGGCAAGCTTGTCAATTAGTATAACTACCACACGCTGGCTAACCATGTGTCAAAATCAGCATGTTAGCAAA
CAAGTATCTGTAGATGCTATGTACAGGTGACACCACATCCTATAGTGAGTCGTATTA-3'

Orflab forward and reverse (strain S)

5'-**TAATACGACTCACTATAGG**ATGGTGGTCACTCGTACAGATACTTGTGCTAACAAACATGCTGATTGACACATGGTTAGTC
AGCGTGGTGGTAGTTACTAATGACAAAGCTGCCATTGATTGCTGCAGTCATAACA-3'
5'-TGTATGACTGCAGCAATCAATGGGCAAGCTTGTCAATTAGTATAACTACCACACGCTGACTAACCATGTGTCAAAATCAGCATGTTAGCAAA
CAAGTATCTGTAGATGCTATGTACAGGTGACACCACATCCTATAGTGAGTCGTATTA-3'

Spike D614 forward and reverse

5'-**TAATACGACTCACTATAGG**CTTGACATTACACCATGTTCTTGGTGTCACTGTTATAACACCAGGAACAAACTTCTAACCGAGTTGCTGTTCTT
TATCAGGATGTTACTGCACAGAAGTCCCTGTGCTATTGAGATCAACTTACTCCTACTGGCGTGTATTCTACAGGTTCTAATGTT-3'
5'-AACATTAGAACCTGTAGAATAAACACGCCAAGTAGGAGTAAGTTGATCTGCATGAATAGCAACAGGGACTCTGTGCAGTTAACATCCTGATAAAGAAC
AGCAACCTGGTTAGAAGTATTGTTCTGGTTATAACACTGACACCACCAAAGAACATGGTGTAAAGTCAAGCCTATAGTGAGTCGTATTA-3'

Spike 614G forward and reverse

5'-**TAATACGACTCACTATAGG**CTTGACATTACACCATGTTCTTGGTGTCACTGTTATAACACCAGGAACAAACTTCTAACCGAGTTGCTGTTCTT
TATCAGGGTGTAACTGCACAGAAGTCCCTGTGCTATTGAGATCAACTTACTCCTACTGGCGTGTATTCTACAGGTTCTAATGTT-3'
5'-AACATTAGAACCTGTAGAATAAACACGCCAAGTAGGAGTAAGTTGATCTGCATGAATAGCAACAGGGACTCTGTGCAGTTAACACCCGTATAAAGAAC
AGCAACCTGGTTAGAAGTATTGTTCTGGTTATAACACTGACACCACCAAAGAACATGGTGTAAAGTCAAGCCTATAGTGAGTCGTATTA-3'

Spike N501 forward and reverse

5'-**TAATACGACTCACTATAGG**AACCTTTGAGAGAGATATTCAACTGAAATCTATCAGGCCGTAGCACACCTTGTAAATGGTGTGAAGGTTTAATTGTT
ACTTCCCTTACAATCATATGGTTCCAACCCACTAATGGTGTGGTTACCAACCACATACAGAGTAGTAGTACTTTCTTTGAACTCTACATGCACCAGCAAC
TGTGTTGAGGAC
5'-GGTCCACAAACAGTTGCTGGTCATGTAGAAGTTCAAAAGAAAGTACTACTCTGTATGGTGTGGTAACCAACACCATTAGTGGTTGAAACCATATG
ATTGTAAGGAAAGTAAACAATTAAACCTCAACACCATTACAAGGTGTGCTACCGGCCTGATAGATTTCAGTTGAAATATCTCTCAAAGGTTCTATAG
TGAGTCGTATTA-3'

Spike 501Y forward and reverse

5'-**TAATACGACTCACTATAGG**AACCTTTGAGAGAGATATTCAACTGAAATCTATCAGGCCGTAGCACACCTTGTAAATGGTGTGAAGGTTTAATTGTT
ACTTCCCTTACAATCATATGGTTCCAACCCACTTATGGTGTGGTTACCAACCACATACAGAGTAGTAGTACTTTCTTTGAACTCTACATGCACCAGCAAC
TGTGTTGAGGAC
5'-GGTCCACAAACAGTTGCTGGTCATGTAGAAGTTCAAAAGAAAGTACTACTCTGTATGGTGTGGTAACCAACCCATAAGTGGTTGAAACCATATG
ATTGTAAGGAAAGTAAACAATTAAACCTCAACACCATTACAAGGTGTGCTACCGGCCTGATAGATTTCAGTTGAAATATCTCTCAAAGGTTCTATAG
TGAGTCGTATTA-3'

E Sarbeco forward and reverse

5'-**TAATACGACTCACTATAGG**ATGTAACATCGTTCGGAAGAGACAGGTACGTTAATAGTTAACAGCTACTTCTTTCTGCTTCTGGTATTCTG
CTAGTTACACTAGCCATCCTACTGCCCTGATTGCTGCAGTCATGCTGCAATTGTTAACGTGAGCTTGTAACACCTCTTACGTTACTCTCGT
TTAAAAATCTGAATTCTTAGAGTCTCTGATCTCTGGTCTAA-3'
5'-TTAGACCAGAACATCAGAACATTAGAAGAATTCAAGATTTAACACGAGAGTAACGTAAGGTTTACAAGACTCACGTTAACAAATATTGAG
CAGTACGCCACACAATCGAAGCGCAGTAAGGATGGCTAGTGTAACTAGCAAGAACATACCACGAAAGCAAGAAAAGAACGTACGCTATTAACACTG
TCTCTCCGAAACGAATGAGTACATCTATAGTGAGTCGTATTA-3'

N LSPQ forward and reverse

5'-**TAATACGACTCACTATAGG**GTTGGGACCCCTCAGATTCAACTGGCAGTAACCGAGAACGGAGTCAGTGGGGCGCGATCAAACACGTCGGCCCCA
AGGTTACCCAATAAATCTCGCTTGGTTACCGCCTCCTACTCAACATGGCAAGGAAGACCTTAAATT-3'
5'-AATTAAAGGTCTCCTGGCATGTTGAGTGAAGCGGTGAACCAAGACGCAGTATTGTTGAAACCTTGGGTAACCTTGGGCGACGTTGTTGATCGCGCCCCAC
TGCCTCTCCATTCTGGTACTGCCAGTTGAATCTGAGGGTCCACCAACCTATAGTGAGTCGTATTA-3'

B2M exons 2-3 forward and reverse

5'-**TAATACGACTCACTATAGG**TACTCCAAAGATTCAAGGTTACTCACGTCATCCAGCAGAGAACGGAAATGAAAGTCAAATTCTGAAATTGCTATGTCCTGGGT
TTCATCCATCCGACATTGAAGTTGACTTACTGAAGAATGGAGAGAACGGAAATTGAAAAGTGGAGCATTCAAGCTTGTGCAAGGACTGGCTTTCTATCT
CTTGTACTACACTGAATTCAACCCCCACTGAAAAGATGAGTATGCCTGCCGTGTAACCATGTGACTTGTACAGCCAAAGATAGTTAACGTGGATCGAGAC
ATGTAAGCAGCATCATGGAG-3'
5'-CTCCATGATGCTGTTACATGTCGATCCCCTTAACATATCTGGGCTGTGACAAAGTCACATGGTCACACGGCAGGCATACTCATTTTCAGTGG
GGGTGAATTCACTGAGTACAAGAGATGAAAGACCGACTCCTGCTGAAAGACAAGTCTGAATGCTCCACTTTCAATTCTCTCCATTCTCAGTAAGTC
AACTCAATGTCGGATGGATGAAACCCAGACACATAGCAATTCAAGGAAATTGACTTCCATTCTGCTGGATGACGTGAGTAAACCTGAATCTTGGAGTA
CCCTATAGTGAGTCGTATTA-3'

Bold sequences indicate T7 promoter sequence that was used for RNA synthesis