**Supplementary table 1:** Primer sequences and volumes as used in this study. Primers were dissolved to a concentration of 100 μM.

|  |  |  |  |
| --- | --- | --- | --- |
| **Mix 1** |  |  |  |
| **Name** | **Sequence** | **Orientation:** | **Volume:** |
| SARS-CoV-2\_1\_LEFT | ACCAACCAACTTTCGATCTCTTGT | FWD | 10μl |
| SARS-CoV-2\_1\_RIGHT | CGAGCATCCGAACGTTTGATGA | REV | 10μl |
| SARS-CoV-2\_3\_LEFT | ACGAGCTTGGCACTGATCCTTA | FWD | 10μl |
| SARS-CoV-2\_3\_RIGHT | GGTTGCATTCATTTGGTGACGC | REV | 10μl |
| SARS-CoV-2\_5\_LEFT | TGTCCAGCATGTCACAATTCAGA | FWD | 10μl |
| SARS-CoV-2\_5\_RIGHT | TACAACACGAGCAGCCTCTGAT | REV | 10μl |
| SARS-CoV-2\_7\_LEFT | TGGCACTGTTTATGAAAAACTCAAACC | FWD | 10μl |
| SARS-CoV-2\_7\_RIGHT | TTTCGAGCAACATAAGCCCGTT | REV | 10μl |
| SARS-CoV-2\_9\_LEFT | TCACTTTTGAACTTGATGAAAGGATTGA | FWD | 10μl |
| SARS-CoV-2\_9\_RIGHT | GATTGTCCTCACTGCCGTCTTG | REV | 10μl |
| SARS-CoV-2\_11\_LEFT | AAACATGGAGGAGGTGTTGCAG | FWD | 20μl |
| SARS-CoV-2\_11\_RIGHT | TCTTGTTTTCTCTGTTCAACTGAAGGT | REV | 20μl |
| SARS-CoV-2\_13\_LEFT | GCTCCATATATAGTGGGTGATGTTGT | FWD | 10μl |
| SARS-CoV-2\_13\_RIGHT | AGCCATGTGTTACATAGCCAAGTG | REV | 10μl |
| SARS-CoV-2\_15\_LEFT | CTATTCTGGACAATCTACACAACTAGGT | FWD | 10μl |
| SARS-CoV-2\_15\_RIGHT | AGCATCTTGTAGAGCAGGTGGA | REV | 10μl |
| SARS-CoV-2\_17\_LEFT | GCTGTTATGTACATGGGCACACT | FWD | 10μl |
| SARS-CoV-2\_17\_RIGHT | GCTTGCGTTTGGATATGGTTGG | REV | 10μl |
| SARS-CoV-2\_19\_LEFT | TGTTACATAAACCTATTGTTTGGCATGT | FWD | 10μl |
| SARS-CoV-2\_19\_RIGHT | TCCCAAGGGACACTATTAACAGCA | REV | 10μl |
| SARS-CoV-2\_21\_LEFT | AGCAAAGAATACTGTTAAGAGTGTCGG | FWD | 60μl |
| SARS-CoV-2\_21\_RIGHT | TCGGGGCCATTTGTACAAGATT | REV | 60μl |
| SARS-CoV-2\_23\_LEFT | ACTATTGTTAATGGTGTTAGAAGGTCCT | FWD | 10μl |
| SARS-CoV-2\_23\_RIGHT | GCAACTTCCGCACTATCACCAA | REV | 10μl |
| SARS-CoV-2\_25\_LEFT | TGTCTTAAATTGTCACATCAATCTGACAT | FWD | 20μl |
| SARS-CoV-2\_25\_RIGHT | TCACGAGTGACACCACCATCAA | REV | 20μl |
| SARS-CoV-2\_27\_LEFT | CTGGTTTGCCTGGCACGATATT | FWD | 10μl |
| SARS-CoV-2\_27\_RIGHT | TCTACACCACAGAAAACTCCTGGT | REV | 10μl |
| SARS-CoV-2\_29\_LEFT | ACAGTCATGTAGTTGCCTTTAATACTTTAC | FWD | 10μl |
| SARS-CoV-2\_29\_RIGHT | GAGCCTTTGCGAGATGACAACA | REV | 10μl |
| SARS-CoV-2\_31\_LEFT | AACGGTCTTTGGCTTGATGACG | FWD | 10μl |
| SARS-CoV-2\_31\_RIGHT | ACCTTCTAAGTCTGTGCCAGCA | REV | 10μl |
| SARS-CoV-2\_33\_LEFT | TGTGGCTATGAAGTACAATTATGAACCT | FWD | 10μl |
| SARS-CoV-2\_33\_RIGHT | AGCTACAGTGGCAAGAGAAGGT | REV | 10μl |
| SARS-CoV-2\_35\_LEFT | TGGTGCTAGGAGAGTGTGGACA | FWD | 10μl |
| SARS-CoV-2\_35\_RIGHT | GGCTACTTTGATACAAGGTTTGCC | REV | 10μl |
| SARS-CoV-2\_37\_LEFT | CTTTCCATGCAGGGTGCTGTAG | FWD | 10μl |
| SARS-CoV-2\_37\_RIGHT | GTTTGGCTGCTGTTGTAAGAGGT | REV | 10μl |
| SARS-CoV-2\_39\_LEFT | ACAATTCACCTAATTTAGCATGGCCT | FWD | 10μl |
| SARS-CoV-2\_39\_RIGHT | TTGGTTGTCCCCCACTAGCTAG | REV | 10μl |
| SARS-CoV-2\_41\_LEFT | AGTATGTACAAATACCTACAACTTGTGCT | FWD | 10μl |
| SARS-CoV-2\_41\_RIGHT | AGCATAGACGAGGTCTGCCATT | REV | 10μl |
| SARS-CoV-2\_43\_LEFT | TGGTATTGTTGGTGTACTGACATTAGA | FWD | 10μl |
| SARS-CoV-2\_43\_RIGHT | AGGGTCAGCAGCATACACAAGT | REV | 10μl |
| SARS-CoV-2\_45\_LEFT | CACTTCTTCTTTGCTCAGGATGGT | FWD | 10μl |
| SARS-CoV-2\_45\_RIGHT | AACATGTTGTGCCAACCACCAT | REV | 10μl |
| SARS-CoV-2\_47\_LEFT | TGTAGCTTGTCACACCGTTTCT | FWD | 10μl |
| SARS-CoV-2\_47\_RIGHT | AGTAAGGTCAGTCTCAGTCCAACA | REV | 10μl |
| SARS-CoV-2\_49\_LEFT | AGGAGTATGCTGATGTCTTTCATTTGT | FWD | 10μl |
| SARS-CoV-2\_49\_RIGHT | CACCAGCATTTGTCCAGTCACA | REV | 10μl |
| SARS-CoV-2\_51\_LEFT | TCTTTCATGGGAAGTTGGTAAACCT | FWD | 20μl |
| SARS-CoV-2\_51\_RIGHT | TCACATAGTGCATCAACAGCGG | REV | 20μl |
| SARS-CoV-2\_53\_LEFT | TGTCAATGCCAGATTAYGTGCT | FWD | 30μl |
| SARS-CoV-2\_53\_RIGHT | CAAGAGTGAGCTGTTTCAGTGGT | REV | 30μl |
| SARS-CoV-2\_55\_LEFT | TGTTGACACTAAATTCAAAACTGAAGGT | FWD | 40μl |
| SARS-CoV-2\_55\_RIGHT | TGTCAACTCAAAGCCATGTGCC | REV | 40μl |
| SARS-CoV-2\_57\_LEFT | CGTTTATGATTGATGTTCAACAATGGGG | FWD | 10μl |
| SARS-CoV-2\_57\_RIGHT | ACAACCAGGCAAGTTAAGGTTAGA | REV | 10μl |
| SARS-CoV-2\_59\_LEFT | AGTCTCATGGAAAACAAGTAGTGTCA | FWD | 10μl |
| SARS-CoV-2\_59\_RIGHT | ATTAGCAGCAATGTCCACACCC | REV | 10μl |
| SARS-CoV-2\_61\_LEFT | AGAAATGCCCGTAATGGTGTTCT | FWD | 10μl |
| SARS-CoV-2\_61\_RIGHT | TGAACCTGTTTGCGCATCTGTT | REV | 10μl |
| SARS-CoV-2\_63\_LEFT | TGGCCATGTAGAAACATTTTACCCA | FWD | 10μl |
| SARS-CoV-2\_63\_RIGHT | ATAGCCACGGAACCTCCAAGAG | REV | 10μl |
| SARS-CoV-2\_65\_LEFT | GGCAAACCACGCGAACAAATAR | FWD | 10μl |
| SARS-CoV-2\_65\_RIGHT | ACCTCTTAGTACCATTGGTCCCA | REV | 10μl |
| SARS-CoV-2\_67\_Lalt | ACGCTACTAATGTTGTTATTAAAGTCTGTG | FWD | 20μL |
| SARS-CoV-2\_67\_RIGHT | GGTCAAGTGCACAGTCTACAGC | REV | 20μl |
| SARS-CoV-2\_69\_LEFT | ACTGTGTTGCTGATTATTCTGTCCT | FWD | 20μl |
| SARS-CoV-2\_69\_RIGHT | TAGGTCCACAAACAGTTGCTGG | REV | 20μl |
| SARS-CoV-2\_71\_LEFT | ACTTCTAACCAGGTTGCTGTTCTT | FWD | 10μl |
| SARS-CoV-2\_71\_R\_up | CAACAGCTATTCCAGTTAAAGCACG | REV | 10μl |
| SARS-CoV-2\_73\_LEFT | CTTGCAGATGCTGGCTTCATCA | FWD | 10μl |
| SARS-CoV-2\_73\_RIGHT | TGCACTTCAGCCTCAACTTTGT | REV | 10μl |
| SARS-CoV-2\_75\_LEFT | CTTCCCTCAGTCAGCACCTCAT | FWD | 10μl |
| SARS-CoV-2\_75\_RIGHT | CAAGCCAGCTATAAAACCTAGCCA | REV | 10μl |
| SARS-CoV-2\_77\_LEFT | TGGAACTGTAACTTTGAAGCAAGGT | FWD | 20μl |
| SARS-CoV-2\_77\_RIGHT | GACTTGTTGTGCCATCACCTGA | REV | 20μl |
| SARS-CoV-2\_79\_LEFT | GGTGTTGAACATGTTACCTTCTTCAT | FWD | 30μl |
| SARS-CoV-2\_79\_R\_up | CTTCAACGGTAATAGTACCGTTGG | REV | 30μl |
| SARS-CoV-2\_81\_LEFT | CTTGTTTTGTGCTTGCTGCTGT | FWD | 10μl |
| SARS-CoV-2\_81\_RIGHT | ACTGCTACTGGAATGGTCTGTGT | REV | 10μl |
| SARS-CoV-2\_83\_LEFT | AGATGAAGAGCAACCAATGGAG | FWD | 30μl |
| SARS-CoV-2\_83\_R\_up | TTCATGTTCGTTTAGGCGTGAC | REV | 30μl |
| SARS-CoV-2\_85\_LEFT | AGCACCTTTAATTGAATTGTGCGTG | FWD | 10μl |
| SARS-CoV-2\_85\_RIGHT | CGTCTGGTAGCTCTTCGGTAGT | REV | 10μl |
| SARS-CoV-2\_87\_LEFT | AAAAGATCACATTGGCACCCGC | FWD | 10μl |
| SARS-CoV-2\_87\_RIGHT | CGACATTCCGAAGAACGCTGAA | REV | 10μl |
| SARS-CoV-2\_89\_LEFT | AGGCTGATGAAACTCAAGCCTT | FWD | 20μl |
| SARS-CoV-2\_89\_RIGHT | AAAATCACATGGGGATAGCACTACT | REV | 20μl |

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| --- | --- | --- | --- |
| **Mix 2** |  |  |  |
| **Name** | **Sequence** | **Orientation:** | **Volume:** |
| SARS-CoV-2\_2\_LEFT | TCGTACGTGGCTTTGGAGACTC | FWD | 10μl |
| SARS-CoV-2\_2\_RIGHT | ATGCACTCAAGAGGGTAGCCAT | REV | 10μl |
| SARS-CoV-2\_4\_LEFT | ACACCTTCAATGGGGAATGTCC | FWD | 10μl |
| SARS-CoV-2\_4\_RIGHT | AGGCACACTTGTTATGGCAACC | REV | 10μl |
| SARS-CoV-2\_6\_LEFT | TGTGAAAGGTTTGGATTATAAAGCATTCA | FWD | 10μl |
| SARS-CoV-2\_6\_RIGHT | ACAGGTGACAATTTGTCCACCG | REV | 10μl |
| SARS-CoV-2\_8\_LEFT | AGGGAGAAACACTTCCCACAGA | FWD | 20μl |
| SARS-CoV-2\_8\_RIGHT | AATCAATGCCCAGTGGTGTAAGT | REV | 20μl |
| SARS-CoV-2\_10\_LEFT | TGAGTATGGTACTGAAGATGATTACCAAG | FWD | 20μl |
| SARS-CoV-2\_10\_RIGHT | GCCGACAACATGAAGACAGTGT | REV | 20μl |
| SARS-CoV-2\_12\_LEFT\_up | ACTGTTCGCACGAAaYGTCTACT | FWD | 30μl |
| SARS-CoV-2\_12\_RIGHT | CCTGACCCGGGTAAGTGGTTAT | REV | 30μl |
| SARS-CoV-2\_14\_LEFT | GTTTCAACTATACAGCGTAAATATAAGGGT | FWD | 40μl |
| SARS-CoV-2\_14\_RIGHT | CGTGTGGAGGTTAATGTTGTCTACT | REV | 40μl |
| SARS-CoV-2\_16\_LEFT | AGGTACATGTCAGCATTAAATCACACT | FWD | 10μl |
| SARS-CoV-2\_16\_RIGHT | AGTTCATACTGAGCAGGTGGTG | REV | 10μl |
| SARS-CoV-2\_18\_LEFT | CAGTTACACAACAACCATAAAACCAGT | FWD | 10μl |
| SARS-CoV-2\_18\_RIGHT | GATTATCCATTCCCTGCGCGTC | REV | 10μl |
| SARS-CoV-2\_20\_LEFT | TACAGAAGAGGTTGGCCACACA | FWD | 10μl |
| SARS-CoV-2\_20\_RIGHT | AACACYTAAAGCAGCGGTTGAG | REV | 10μl |
| SARS-CoV-2\_22\_LEFT | AGTTGCAGAGTGGTTTTTGGCA | FWD | 10μl |
| SARS-CoV-2\_22\_RIGHT | ACTGTAGTGACAAGTCTCTCGCA | REV | 10μl |
| SARS-CoV-2\_24\_LEFT | AGCTAATAACACTAAAGGTTCATTGCCT | FWD | 10μl |
| SARS-CoV-2\_24\_RIGHT | TGACTTTTTGCTACCTGCGCAT | REV | 10μl |
| SARS-CoV-2\_26\_LEFT | TGGTTGAAGCAGTTAATTAAAGTTACACT | FWD | 10μl |
| SARS-CoV-2\_26\_RIGHT | TTCAGCAGCCAAAACACAAGCT | REV | 10μl |
| SARS-CoV-2\_28\_LEFT | CCTTGAAGGTTCTGTTAGAGTGGT | FWD | 20μl |
| SARS-CoV-2\_28\_RIGHT | AGGTGTGAACATAACCATCCACTG | REV | 20μl |
| SARS-CoV-2\_30\_LEFT | AGAAATGTATCTAAAGTTGCGTAGTGATG | FWD | 10μl |
| SARS-CoV-2\_30\_RIGHT | CCCTGAGTTGAACATTACCAGCC | REV | 10μl |
| SARS-CoV-2\_32\_up\_2 | ACCATCTGGTGTTTACCAATGTGC | FWD | 10μl |
| SARS-CoV-2\_32\_RIGHT | GCACTACCCAATATGGTACGTCC | REV | 10μl |
| SARS-CoV-2\_34\_LEFT | GTCCAGAGTACTCAATGGTCTTTGT | FWD | 10μl |
| SARS-CoV-2\_34\_RIGHT | ACCTCTGGCCAAAAACATGACA | REV | 10μl |
| SARS-CoV-2\_36\_LEFT | CGCTACTTTAGACTGACTCTTGGTG | FWD | 10μl |
| SARS-CoV-2\_36\_RIGHT | ATCACCATTAGCAACAGCCTGC | REV | 10μl |
| SARS-CoV-2\_38\_LEFT | AGATCTGAGGACAAGAGGGCAA | FWD | 10μl |
| SARS-CoV-2\_38\_RIGHT | TGTCATCAGTGCAAGCAGTTTGT | REV | 10μl |
| SARS-CoV-2\_40\_LEFT | GGTATGGTACTTGGTAGTTTAGCTGC | FWD | 10μl |
| SARS-CoV-2\_40\_RIGHT | ACGATTGTGCATCAGCTGACTG | REV | 10μl |
| SARS-CoV-2\_42\_LEFT | TCTCTAACTACCAACATGAAGAAACAATTT | FWD | 40μl |
| SARS-CoV-2\_42\_RIGHT | GCAGTTAAAGCCCTGGTCAAGG | REV | 40μl |
| SARS-CoV-2\_44\_LEFT | TGGACCACTAGTGAGAAAAATATTTGTTG | FWD | 10μl |
| SARS-CoV-2\_44\_RIGHT | ACAGCCACCATCGTAACAATCA | REV | 10μl |
| SARS-CoV-2\_46\_LEFT | TGCAAAGAATAGAGCTCGCACC | FWD | 10μl |
| SARS-CoV-2\_46\_RIGHT | TGCATTAACATTGGCCGTGACA | REV | 10μl |
| SARS-CoV-2\_48\_LEFT | CTCTCTGACGATGCTGTTGTGT | FWD | 10μl |
| SARS-CoV-2\_48\_RIGHT | TGCGGTGTGTACATAGCCTCAT | REV | 10μl |
| SARS-CoV-2\_50\_LEFT | AGGAGGTATGAGCTATTATTGTAAATCACA | FWD | 10μl |
| SARS-CoV-2\_50\_RIGHT | GTTGTACCTCGGTAAACAACAGCA | REV | 10μl |
| SARS-CoV-2\_52\_LEFT | TGCAAATTATCAAAAGGTTGGTATGCA | FWD | 10μl |
| SARS-CoV-2\_52\_RIGHT | CCGAGGAACATGTCTGGACCTA | REV | 10μl |
| SARS-CoV-2\_54\_LEFT | TGGAGAAAAGCTGTCTTTATTTCACCT | FWD | 10μl |
| SARS-CoV-2\_54\_RIGHT | TTCGCGGGTGATAAACATGTTAGG | REV | 10μl |
| SARS-CoV-2\_56\_LEFT | ACCACCGCCTGGAGATCAATTT | FWD | 10μl |
| SARS-CoV-2\_56\_RIGHT | CGCTTAACAAAGCACTCGTGGA | REV | 10μl |
| SARS-CoV-2\_58\_LEFT | GCCTTGTAGTGACAAAGCTTATAAAATAGA | FWD | 10μl |
| SARS-CoV-2\_58\_RIGHT | AAACCCACAAGCTAAAGCCAGC | REV | 10μl |
| SARS-CoV-2\_60\_LEFT | CAGGGTGAAGTACCAGTTTCTATCATT | FWD | 10μl |
| SARS-CoV-2\_60\_RIGHT | GAGTAAAGTAAGTTTCAGGTAATTGTTGG | REV | 10μl |
| SARS-CoV-2\_62\_LEFT | TCGTTTATGGAGATTTTAGTCATAGTCAGT | FWD | 10μl |
| SARS-CoV-2\_62\_RIGHT | TTGCGACATTCATCATTATGCCTTT | REV | 10μl |
| SARS-CoV-2\_64\_LEFT | CTGTACATACAGCTAATAAATGGGATCTCA | FWD | 10μl |
| SARS-CoV-2\_64\_RIGHT | TTTGACCTTCTTTTAAAGACATAACAGCA | REV | 10μl |
| SARS-CoV-2\_66\_LEFT | ACACTAATTCTTTCACACGTGGTG | FWD | 30μl |
| SARS-CoV-2\_66\_RIGHT | ACCCTGTTTTCCTTCAAGGTCC | REV | 30μl |
| SARS-CoV-2\_68\_LEFT | ACATAGAAGTTATTTGACTCCTGGTGA | FWD | 10μl |
| SARS-CoV-2\_68\_R\_up | TAACGCAGCCTGTAAAATCATCTGG | REV | 10μl |
| SARS-CoV-2\_70\_LEFT\_up | CAACTGAAATCTATCAGGCCGGT | FWD | 10μl |
| SARS-CoV-2\_70\_RIGHT | CCCCTATTAAACAGCCTGCACG | REV | 10μl |
| SARS-CoV-2\_72\_LEFT | TGTTACCACAGAAATTCTACCAGTGT | FWD | 10μl |
| SARS-CoV-2\_72\_RIGHT | TACCCGCTAACAGTGCAGAAGT | REV | 10μl |
| SARS-CoV-2\_74\_LEFT | GTGCACTTGGAAAACTTCAAGATGT | FWD | 10μl |
| SARS-CoV-2\_74\_RIGHT | TGTTACAAACCAGTGTGTGCCA | REV | 10μl |
| SARS-CoV-2\_76\_LEFT | GTTGATTTAGGTGACATCTCTGGCA | FWD | 15μl |
| SARS-CoV-2\_76\_RIGHT | AGCGCTCTGAAAAACAGCAAGA | REV | 15μl |
| SARS-CoV-2\_78\_LEFT | CTTTGGCTTTGCTGGAAATGCC | FWD | 10μl |
| SARS-CoV-2\_78\_RIGHT | GTGCTTACAAAGGCACGCTAGT | REV | 10μl |
| SARS-CoV-2\_80\_LEFT | ACGTGAGTCTTGTAAAACCTTCTTTTT | FWD | 10μl |
| SARS-CoV-2\_80\_RIGHT | AATGACCACATGGAACGCGTAC | REV | 10μl |
| SARS-CoV-2\_82\_LEFT | GGACCTGCCTAAAGAAATCACTGT | FWD | 10μl |
| SARS-CoV-2\_82\_RIGHT | TGCCCTCGTATGTTCCAGAAGA | REV | 10μl |
| SARS-CoV-2\_84\_L\_up\_2 | GTTGCGGCAATAGTGTTTATAACAC | FWD | 20μl |
| SARS-CoV-2\_84\_RIGHT | ACGAACAACGCACTACAAGACT | REV | 20μl |
| SARS-CoV-2\_86\_LEFT | GGCCCCAAGGTTTACCCAATAA | FWD | 10μl |
| SARS-CoV-2\_86\_RIGHT | CTGTTGCGACTACGTGATGAGG | REV | 10μl |
| SARS-CoV-2\_88\_LEFT | TAACACAAGCTTTCGGCAGACG | FWD | 10μl |
| SARS-CoV-2\_88\_RIGHT | GTGGTCTGCATGAGTTTAGGCC | REV | 10μl |