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**Supplementary Data**

**An optimized high-throughput SARS-CoV-2 dual reporter trans-complementation system for antiviral screening *in vitro* and *in vivo***

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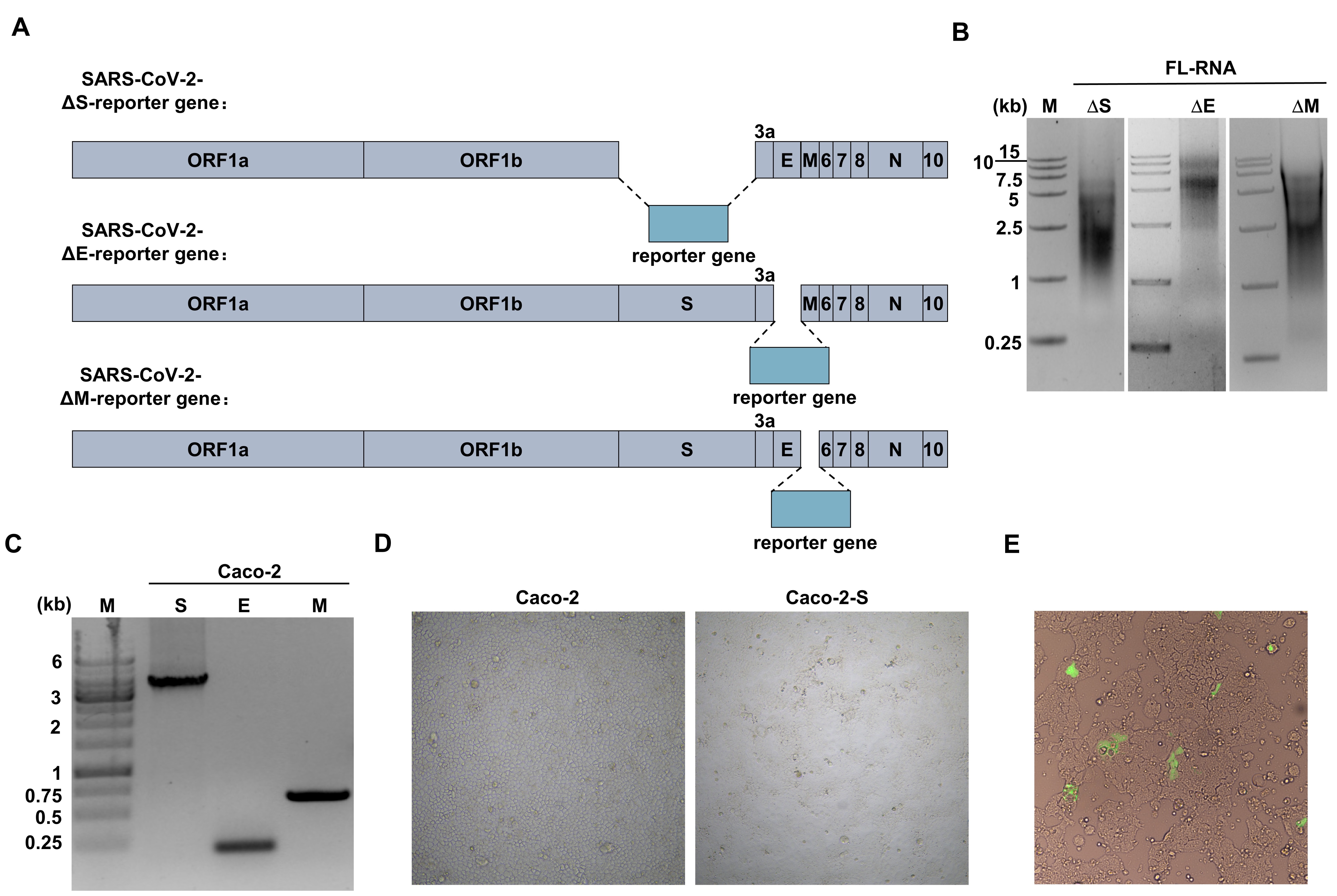
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**Supplementary Figure S1.** **A** Schematic of SARS-CoV-2 ΔS, ΔE and ΔM-reporter gene RDPs. **B** The resulted *in vitro* transcript full-length mRNA was electroporated in the natural agarose gel. The DL15000 marker is indicated. **C** RT-PCR analyses were performed on transduced Caco-2 cells to detect the *S*, *E* and *M* genes, respectively. **D** Lentivirus-S transduced Caco-2 cells show cell-cell fusion. **E** The GFP signal of electroporated Caco-2-S cells.

**Supplementary Table S1.** Primers used for TAR clone.

|  |  |
| --- | --- |
| **Primer** | **Sequence** |
| SARS-CoV-2 A forward | gaattccgtttagtgaaccgTAATACGACTCACTATAGattaaaggtttataccttccc |
| SARS-CoV-2 A reverse | atcacctaactcacctactgtcttattacagtaggctaagataagtgcacaaaagttag |
| SARS-CoV-2 B forward | ctaacttttgtgcacttatcttagcctactgtaataagacagtaggtgagttaggtgat |
| SARS-CoV-2 B reverse | gaaccattaaggaatgaacccttaatagtgaaattgggcctcatagcacattggtaaa |
| SARS-CoV-2 C forward | gtttaccaatgtgctatgaggcccaatttcactattaagggttcattccttaatggttc |
| SARS-CoV-2 C reverse | atgtaagtttacatcctgattatgtacaacacctagctctctgaagtggtatccagttg |
| SARS-CoV-2 D forward | caactggataccacttcagagagctaggtgttgtacataatcaggatgtaaacttacat |
| SARS-CoV-2 D reverse | tgagtgaatatgacatagtcatattctgagccctgtgatgaatcaacagtttgagttgg |
| SARS-CoV-2 E forward | ccaactcaaactgttgattcatcacagggctcagaatatgactatgtcatattcactca |
| SARS-CoV-2 E reverse | acaactctgttgttttctctaattataagtctacctttactaagaagagataaaatcat |
| SARS-CoV-2 F forward | atgattttatctcttcttagtaaaggtagacttataattagagaaaacaacagagttgt |
| SARS-CoV-2 F reverse | ccttgcttcaaagttacagttccaattgtgaagattctcataaacaaatccataagttc |
| SARS-CoV-2 G forward | gaacttatggatttgtttatgagaatcttcacaattggaactgtaactttgaagcaagg |
| SARS-CoV-2 G reverse | gtggagatgccatgccgacccgcggccgcttttttttttttttttttttttttttgtcattctcct |
| pCC1-Trp forward | aggagaatgacaaaaaaaaaaaaaaaaaaaaaaaaaagcggccgcgggtcggcatggcatctccac |
| pCC1-Trp reverse | gggaaggtataaacctttaatctatagtgagtcgtattacggttcactaaacggaattc |