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**Supplementary Data**

**A microfluidic cell chip for virus isolation via rapid screening for permissive cells**

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**Supplementary data**

**Supplementary Table S1** Calculation of the EV71 viral titer with the Behrens-Reed-Muench method.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Dilution | Infectious units | Positive in total (A) | Negative in total (B) | A/(A + B) | Infection percentage (%) |
| 10−3 | 6/6 | 34 | 0 | 34/34 | 100.00 |
| 10−4 | 6/6 | 28 | 0 | 28/28 | 100.00 |
| 10−5 | 6/6 | 22 | 0 | 22/22 | 100.00 |
| 10−6 | 6/6 | 16 | 0 | 16/16 | 100.00 |
| 10−7 | 6/6 | 10 | 0 | 10/10 | 100.00 |
| 10−8 | 3/6 | 4 | 3 | 4/7 | 57.14 |
| 10−9 | 1/6 | 1 | 8 | 1/9 | 11.11 |
| 10−10 | 0/6 | 0 | 14 | 0/14 | 00.00 |
| 10−11 | 0/6 | 0 | 20 | 0/20 | 00.00 |

**Supplementary Table S2** Calculation of the influenza virus H1N1 viral titer with the Behrens–Reed–Muench method.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Dilution | Infectious units | Positive in total (A) | Negative in total (B) | A/(A + B) | Infection percentage (%) |
| 10−2 | 6/6 | 36 | 0 | 36/36 | 100.00 |
| 10−3 | 6/6 | 30 | 0 | 30/30 | 100.00 |
| 10−4 | 6/6 | 24 | 0 | 24/24 | 100.00 |
| 10−5 | 6/6 | 18 | 0 | 18/18 | 100.00 |
| 10−6 | 6/6 | 12 | 0 | 12/12 | 100.00 |
| 10−7 | 4/6 | 6 | 2 | 6/8 | 75.00 |
| 10−8 | 2/6 | 2 | 6 | 2/8 | 25.00 |

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**Supplementary Fig. S1** Bright-field images of A549, Vero, and RD cells that were seeded in a 96-well plate and infected with EV71 at an MOI of 40. Scale bars = 100 µm and scale bars in inset images = 20 µm.

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**Supplementary Fig. S2** Bright-field microscopic images of A549, Vero, and RD cells cultured in a 96-well plate or on the microfluidic chip without EV71 infection as controls at 30 (upper panel) and 48 (lower panel) hpi for Fig. 5A and 5D. Scale bars = 100 µm and scale bars in inset images = 20 µm.

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**Supplementary Fig. S3** Bright-field images of cell lines in the presence of different concentrations of TPCK-trypsin in the culture. Scale bars = 100 µm and scale bars in inset images = 20 µm.

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**Supplementary Fig. S4** Bright-field images of A549, Vero, and MDCK cells that were seeded in a 96-well plate and infected with H1N1 at an MOI of 12.3. Scale bars = 100 µm and scale bars in inset images = 20 µm.

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**Supplementary Fig. S5** Bright-field microscopic images of A549, Vero, and MDCK cells cultured in a 96-well plate or on the microfluidic chip without H1N1 infection as controls at 72 hpi forFig. 7A and 7D. Scale bars = 100 µm and scale bars in inset images = 20 µm.