# Supporting information

## Safety, immunogenicity and effectiveness of defective viral particles arising in mast cells against influenza in mice

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**Table S1. The primer sequences**

| | Target name | Primers |
|---|---|---|
| **Influenza A virus** | **HA** | **5'- CGCAGTATTCAGAAGAAGCAAGAC -3'** |
| | | **5'- TCCATAAGGATAGACCAGCTACCA -3'** |
| **Mouse** | **IFN-β** | **5'- AGATGTCCTCAACTGCTCTC -3'** |
| | | **5'- AGATTCACTACCAGTCCCAG -3'** |
| | **IFN-γ** | **5'- GACTGTGATTGCGGGGTTGT -3'** |
| | | **5'- GGCCCGGAGTGTAGACATCT -3'** |
| | **ISG56** | **5'- GACAAGGCAATCACCCTCTAC -3'** |
| | | **5'- GTCTTTCAGCCACTTTCTCCA -3'** |
| | **TNF** | **5'- TCACTGGAGCCTCGAATGTC -3'** |
| | | **5'- GTGAGGAAGGCTGTGCATTG -3'** |
| | **IL-6** | **5'- ACAGAAGGAGTGGCTAAGGA -3'** |
| | | **5'- CGCACTAGGTTTGCCGAGTA -3'** |
| | **MCP-1** | **5'- GCTTCTGGGCCTGCTGTTCA -3'** |
| | | **5'- AGCTCTCCAGCCTACTCATT -3'** |
| | **β-actin** | **5'- GAGACCTTCAACACCCCAGC -3'** |
| | | **5'- ATGTCACGCACGATTTCCC -3'** |

**Table S2. I/T ratios in HD virus isolated from HMC-1 cells and A549 cells following H1N1 infection.**

| | Time of sample collection | Infectivity titer (I): TCID50/25μl | Total titer (T): HA/25 μl | I/T |
|---|---|---|---|---|
| HD virus (HMC-1) | 30h | 6264.84 | 16 | 391.5525 |
| HD virus (A549) | 18h | 6264.84 | 16 | 391.5525 |
| LD virus | / | 9929102.93 | 256 | 38785.55832 |

**Table S3. The safety of mice treated with different doses of H1N1 LD virus and their protective efficacy on mice to fight against IAV.** Mice were firstly treated with different doses of H1N1 LD virus and re-challenged with 120TCID50/mouse H1N1 LD virus at 21 days. The survival rates of infected mice were recorded.

| TCID50/ | Days post-challenge | | | | | | | Days post-rechallenge (120TCID50/mouse) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mouse | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 9 | 10 | 11 | 12 | 13 | 14 |
| 10 | 5/7 | 4/7 | 3/7 | 3/7 | 1/7 | 1/7 | 1/7 | / | / | / | / | / | / |
| 5 | 6/7 | 6/7 | 4/7 | 3/7 | 2/7 | 2/7 | 2/7 | / | / | / | / | / | / |
| 1 | 7/7 | 6/7 | 5/7 | 5/7 | 3/7 | 2/7 | 2/7 | / | / | / | / | / | / |
| 0.5 | 7/7 | 7/7 | 7/7 | 6/7 | 5/7 | 4/7 | 4/7 | / | / | / | / | / | / |
| 0.1 | 7/7 | 7/7 | 7/7 | 6/7 | 6/7 | 6/7 | 5/7 | / | / | / | / | / | / |
| 0.05 | 7/7 | 7/7 | 7/7 | 7/7 | 7/7 | 7/7 | 7/7 | 5/7 | 5/7 | 3/7 | 2/7 | 2/7 | 2/7 |
| 0.01 | 7/7 | 7/7 | 7/7 | 7/7 | 7/7 | 7/7 | 7/7 | 6/7 | 4/7 | 4/7 | 3/7 | 2/7 | 2/7 |