## **Description of Additional Supplementary Files**

File name: Supplementary Movie 1

**Description:** Time-lapse video showing p65-DsRed HEK293T are insensitive to high TNF- $\alpha$  stimulation, which supports the result of on-chip digital PLA measurement where TNF receptor (TNFR1) readings were all below limit of detection (LOD).

File name: Supplementary Movie 2

**Description:** Time-lapse video showing ICP4-YFP reporter signal in infected cells are stable once expressed.

File name: Supplementary Data 1

Description: Raw data of protein measurements in single cells.