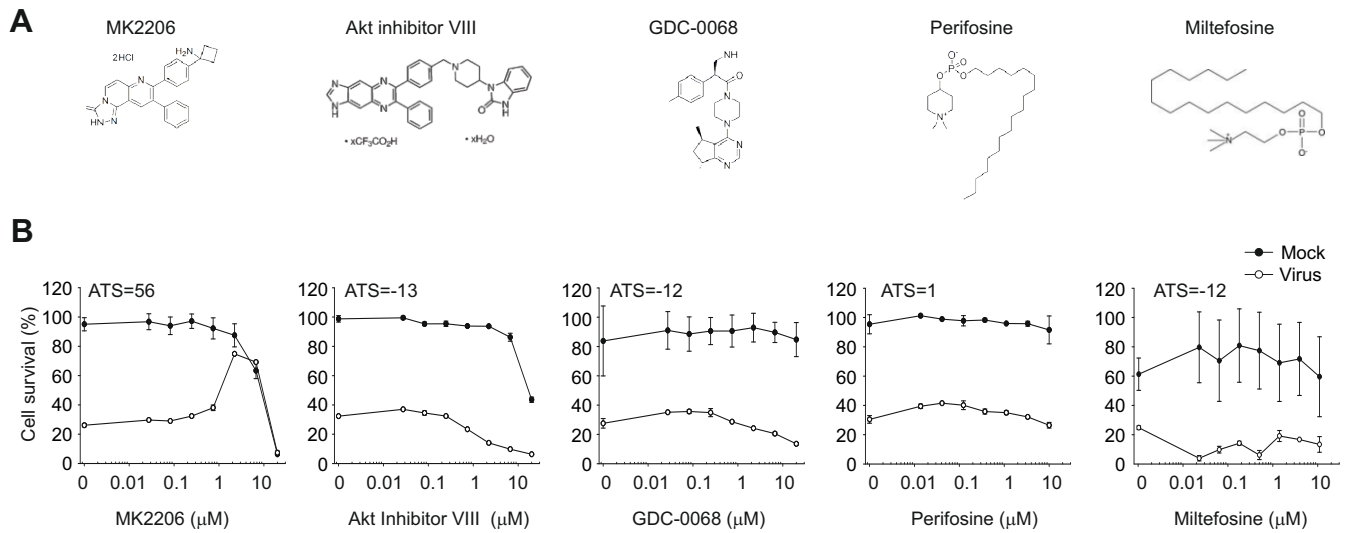


**Supplementary figure 1: MK2206 prolongs MDCK cell survival and attenuates production of pH1N1 virus.**

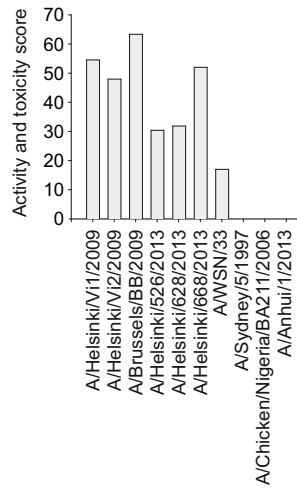
- A) Different human lung cancer cell lines as well as MDCK were mock- or A/Helsinki/P14/2009-infected (moi 2) and cell viability was measured using CTG assay after 48 h.
- B) MDCK cells were treated with increasing concentrations of MK2206 and mock- or A/Helsinki/P14/2009-infected (moi 3), and cell viability was measured using CTG assay after 48 h.
- C) MDCK cells were non- or MK2206-treated (3  $\mu$ M) and infected with different moi of A/Helsinki/P14/2009, and cell viability was measured using CTG assay after 48 h.
- D) Virus titers in supernatants of MDCK cells non- or MK2206-treated (10  $\mu$ M) and infected with A/Helsinki/P14/2009 (moi 0.1) were determined and plotted.



**Supplementary figure 2: Effect of Akt inhibitors on viability of pH1N1-infected and mock-infected MDCK cells.**

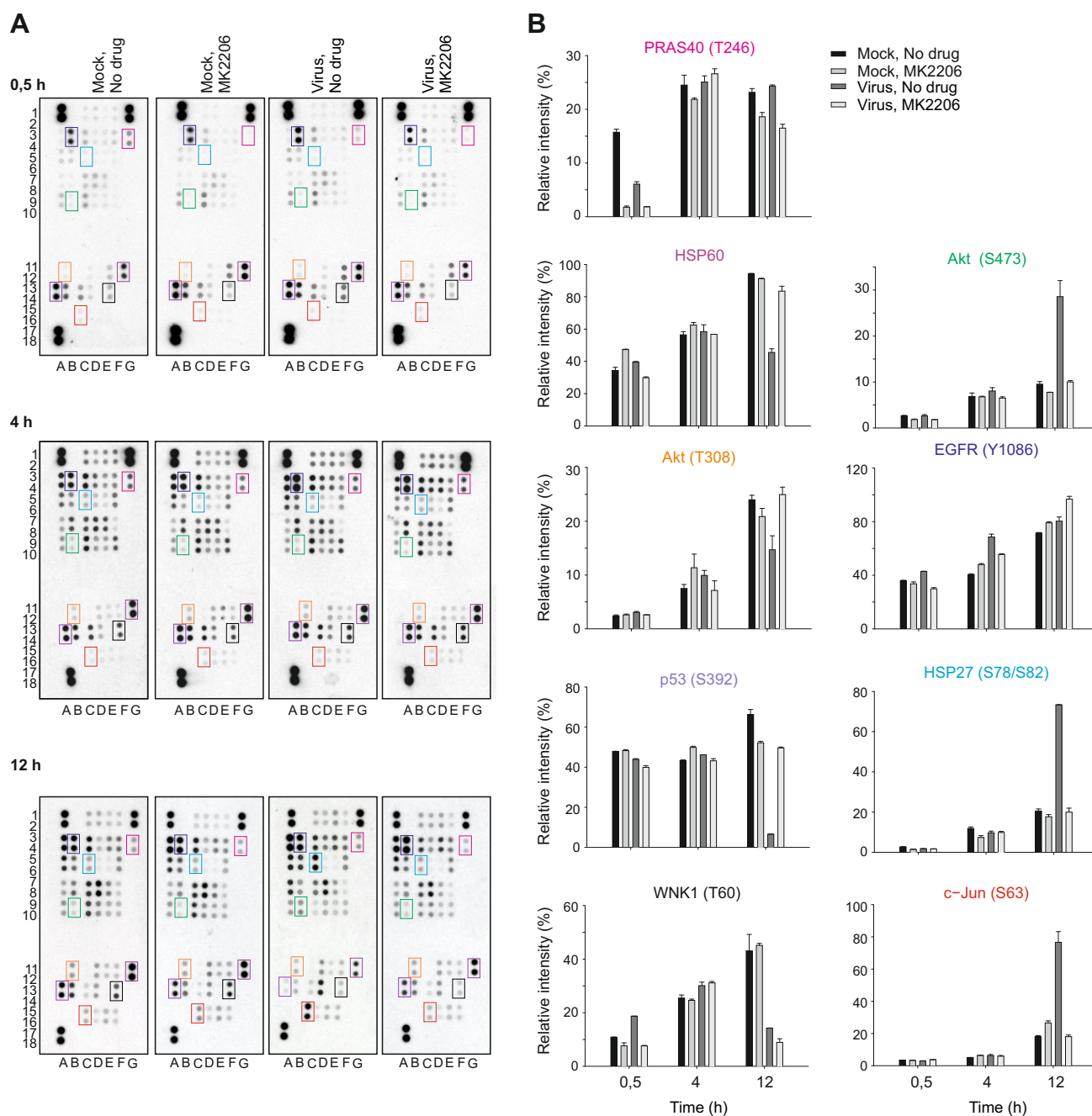
A) Structures of selected Akt inhibitors.

B) MDCK cells were treated with increasing concentrations of specific Akt inhibitor and mock- or A/Helsinki/P14/2009-infected (moi 3), and cell viability was measured using CTG assay after 24 h. The points are a mean values, the number of observations used to derive the values is 3, respectively, and error bars represent the SD. Activity and toxicity scores (ATS) were calculated.



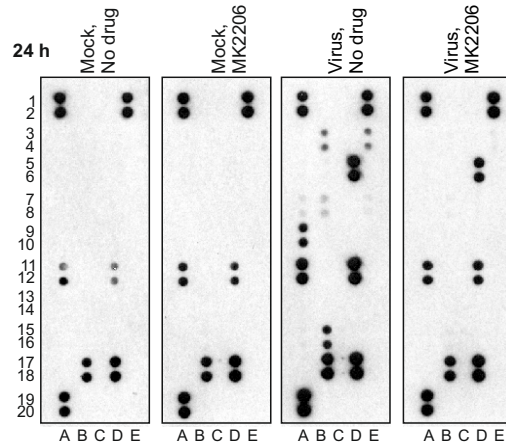
**Supplementary figure 3: MK2206 prolongs survival of cells infected with different influenza strains.**

Cells were treated with increasing concentrations of MK2206 and infected with pH1N1, seasonal or potentially-pandemic influenza strain (moi 1) or mock-infected, cell viability was measured using CTG assay at 48 h or 72 h post infection, ATSS were calculated and plotted.



**Supplementary figure 4: Effect of MK2206 on phospho-proteins in pH1N1-infected and mock-infected NCI-H1666 cells.**

A, B) NCI-H1666 cells were non- or MK2206-treated (10  $\mu$ M) and mock- or A/Helsinki/P14/2009-infected (moi 3), cells were collected after 0.5, 4 and 12 h, and phosphorylation levels of kinases and kinase substrates were profiled using human phospho-kinase array. The relative intensities of spots were calculated in ImageJ and plotted. The numerical (1 through 18) and alphabetic (A through G) values are coordinate reference for analyze identification in panel A. In panel B the points are a mean values, the number of observations used to derive the values is 2 (pair of spots), and error bars represent the SD. The color of the boxed pairs in panel A corresponds to the color of the gene in panel B.



**Supplementary figure 5: Effect of MK2206 on cellular cytokine production.**

NCI-H1666 cells were non- or MK2206-treated (10  $\mu$ M) and mock- or A/Helsinki/P14/2009-infected (moi 3), cell culture supernatants were collected at 24 h post infection, and cytokine levels were determined using human cytokine array panel A. The numerical (1 through 20) and alphabetic (A through E) values are coordinate reference for analyte identification in panel A.