



**Supplementary Fig. 1.** p14 does not form homomeric trans-acting complexes and can be modified at its C-terminus. Mock-transfected cells (panel a) or p14-transfected cells (panel b) were labeled with cell tracker dye CMTMR (red), then mixed with non-transfected target cells labelled with cell tracker dye CMAC (blue). After incubation for 4 h, the p14-transfected cells efficiently fused with non-transfected target cells, as evidenced by the presence of syncytia containing approximately equal numbers of donor (red) and target (blue) cell nuclei (panel b). Arrows indicate the boundaries of a single syncytium. The p14 protein was modified at its C-terminus to include an enterokinase cleavage site and 6xHis tag. Giemsa-stained monolayers of transfected QM5 cells indicated the modified p14 induced efficient cell-cell fusion (panel d) comparable to that induced by authentic p14 (panel c).