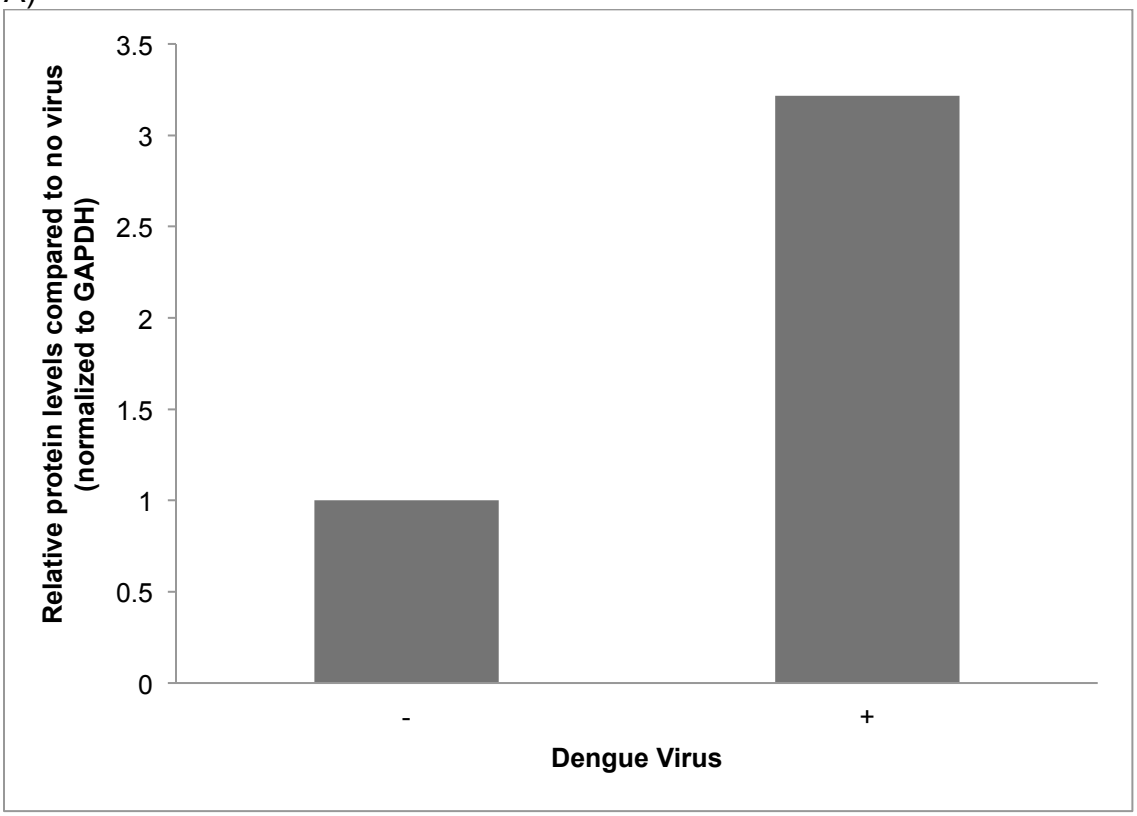
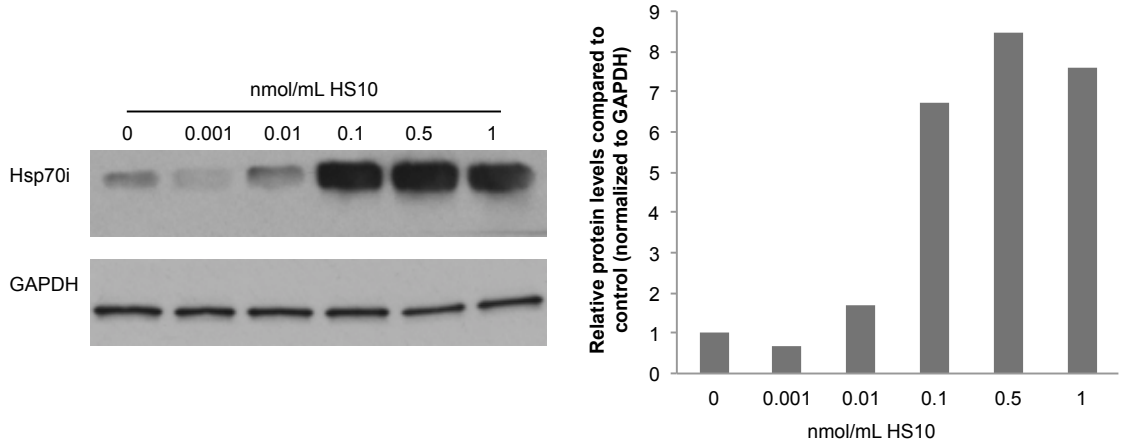
S1 Fig. related to Fig. 1.

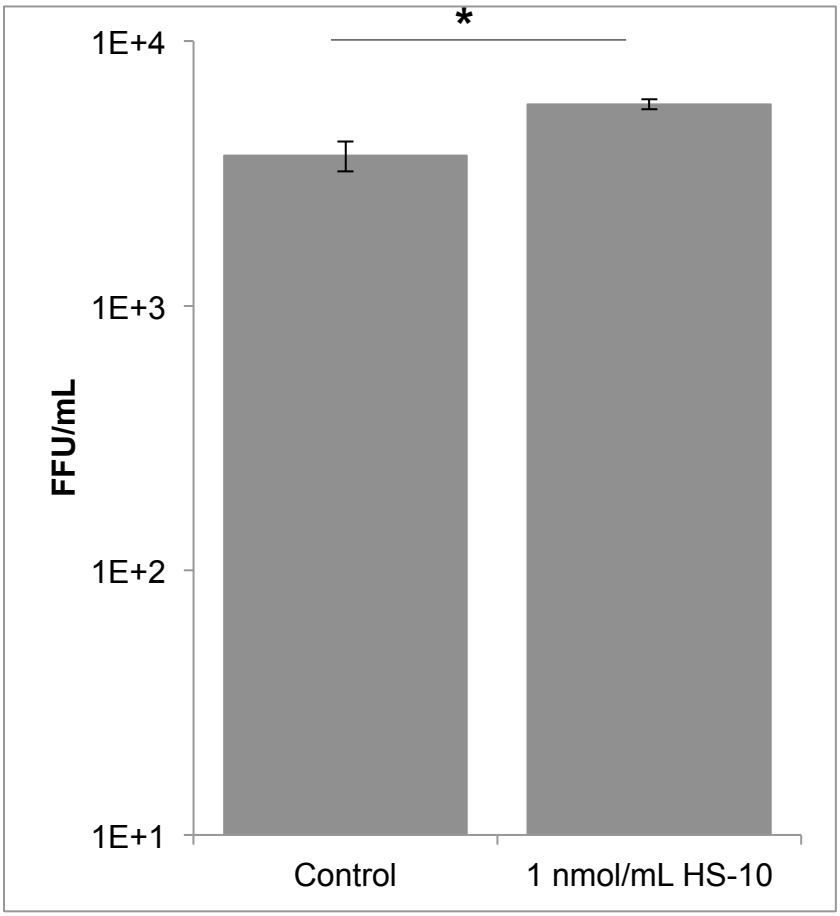
A)



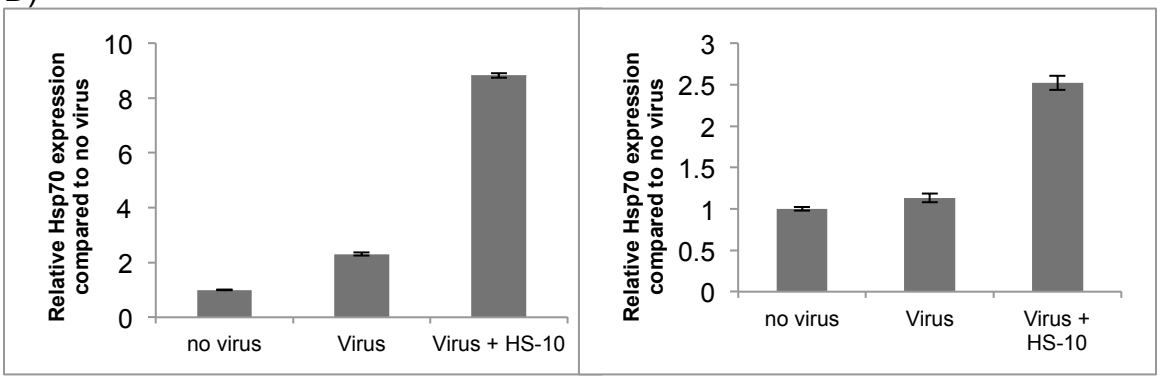
B)



C)



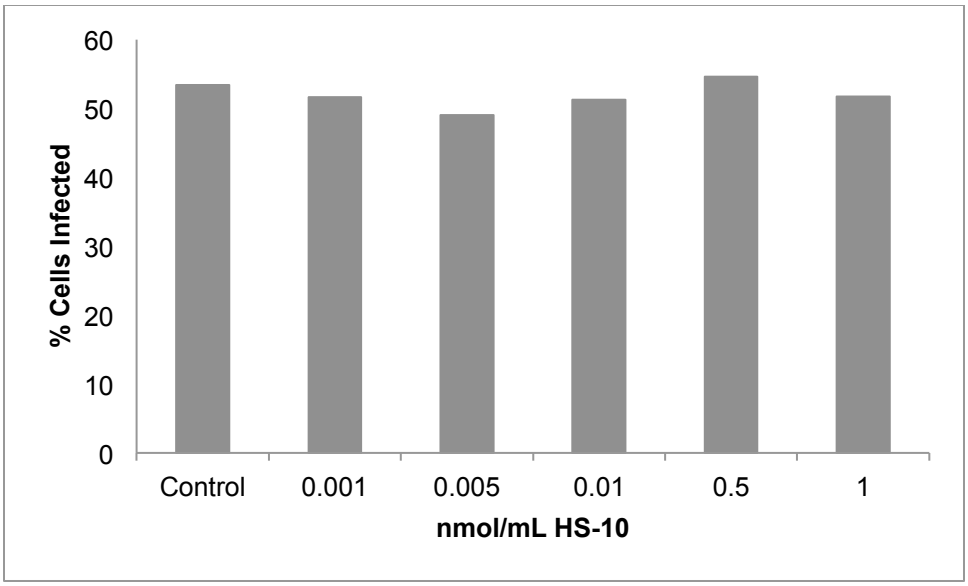
D)



Total Hsp70i

Surface Hsp70i

E)



S1 Fig. Hsp70i is a dengue virus host factor that mediates dengue virus infection.

A) Quantification of western blot shown in Figure 1B, indicating confirmation of Hsp70i induction following DENV infection in U937+DC-SIGN cells. Protein levels are normalized to GAPDH. Quantification conducted using Image J software.

B) HS-10 treatment results in an increase in Hsp70i expression in U937+DC-SIGN cells. Cells were treated with HS-10 for 6 hours, upon which time cells were lysed, subjected to SDS-PAGE, and western blot analysis. GAPDH serves as a loading control. The graph on the right shows quantification of the bands from the western blot, which was quantified using Image J software.

C) HS-10 pretreatment results in a significant increase in DENV infection in U937+DC-SIGN cells as determined by a foci forming assay. Cells were pretreated for 6 hours with HS-10, infected with DENV for 24 hours, and supernatants were then added to a monolayer of Vero cells. A tragacanth gum solution was overlaid and cells were incubated for 72 hours and cells were processed and probed with a DENV E protein antibody coupled with a fluorescent secondary antibody to determine infection. Foci are counted to determine the foci forming untis/mL. (Mean ± SEM. *, $p<0.05$ compared to control).

D) Quantification of histograms shown in Figure 1D. There is an induction in total and surface Hsp70i expression following DENV infection in infected cells and infected cells pretreated with HS-10. Hsp70i expression shown relative to no virus. (Mean ± SEM).

E) Acute HS-10 treatment has no effect on DENV infection of U937+DC-SIGN cells. U937+DC-SIGN cells were treated with HS-10 at the indicated concentrations for 1 hour, DENV was added to cells, and 24 hours post-infection cells were processed for flow cytometry. DENV infection results in 53% of cells infected, with HS-10 treatment resulting in 52% of cells infected at 0.001 nmol/ml, 49% at 0.005 nmol/ml, 51% at 0.01 nmol/ml, 55% at 0.5 nmol/ml, and 52% at 1 nmol/ml. HS-10 was maintained on cells for the duration of the assay. An

antibody for the DENV E protein coupled with a fluorescent secondary antibody was used to determine cells positive for DENV infection.