Supporting Information

DDX3X helicase inhibitors as new strategy to fight West Nile Virus infection

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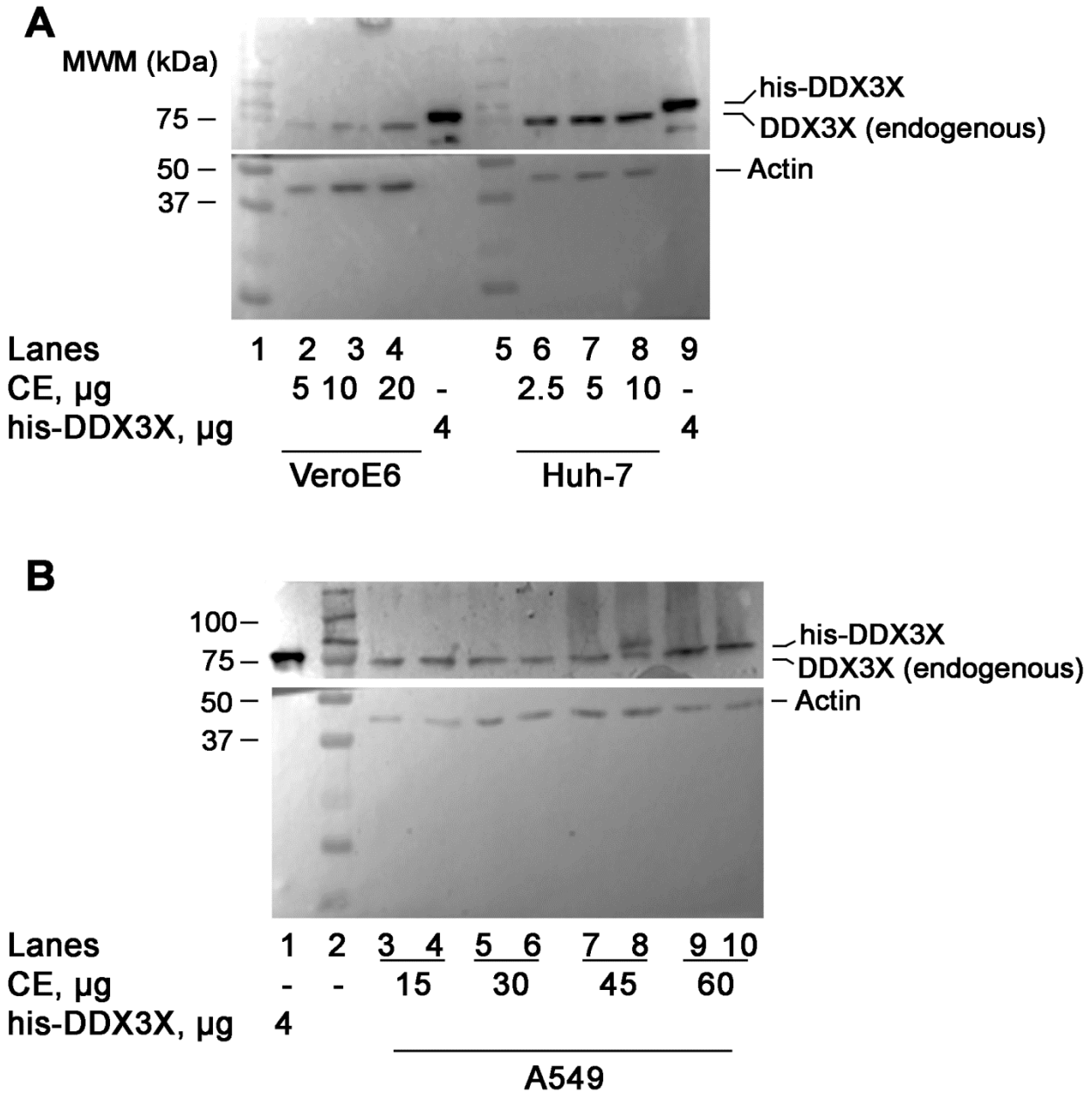
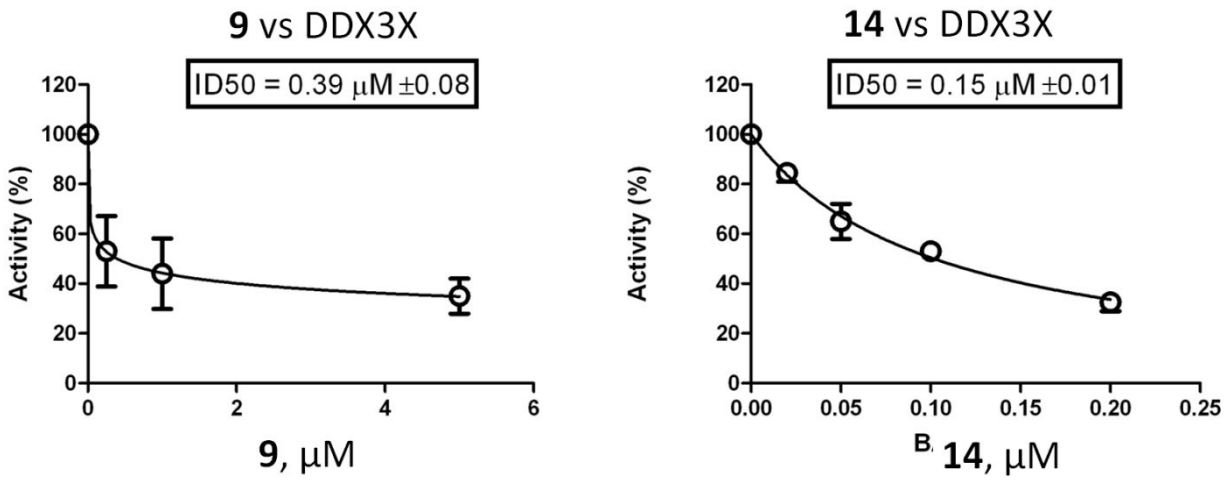


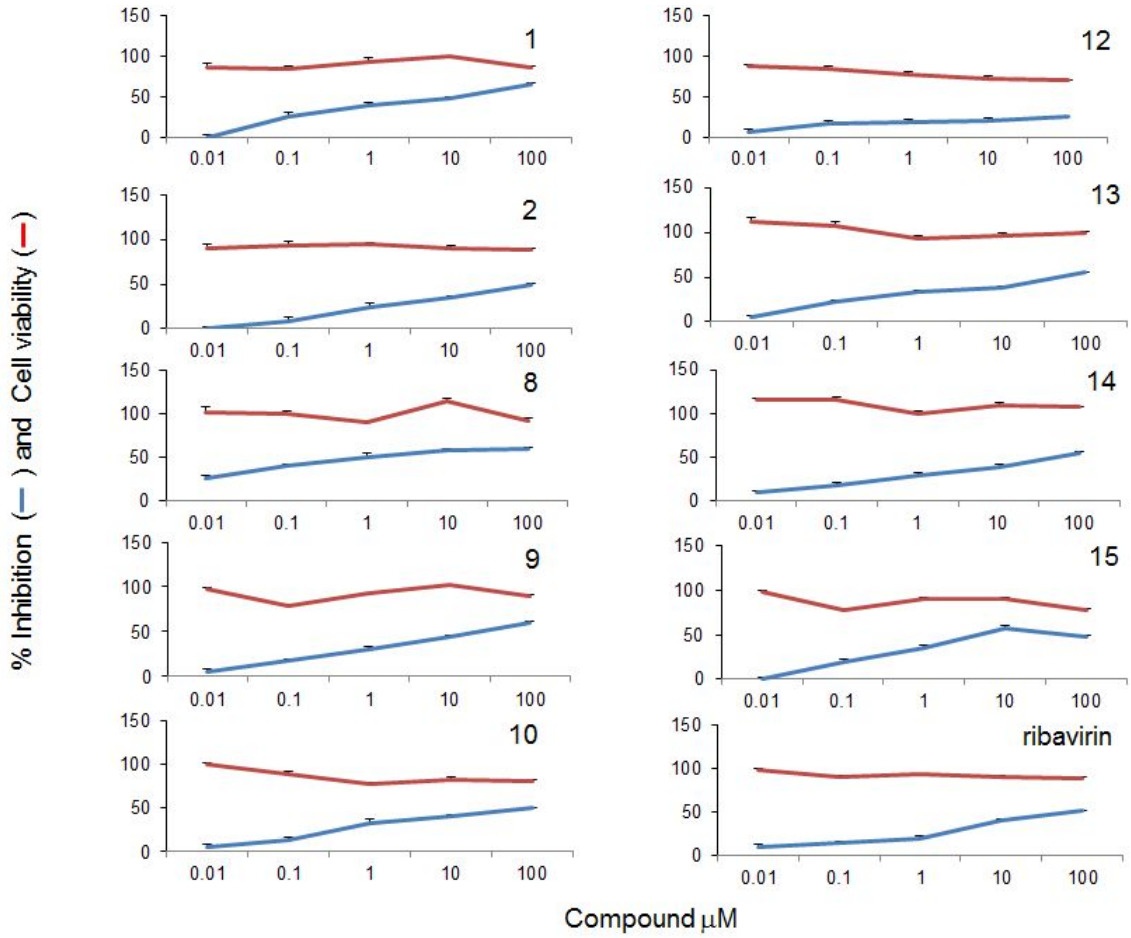
Supplementary Figure 1. Representative Western blot experiments for the quantification of DDX3X in cell extracts (CE). A. Increasing amounts of VeroE6 (lanes 2-4) or Huh-7 (lanes 6-8) total extracts were transferred to a nitrocellulose membrane after SDS-PAGE separation. The membrane was cut immediately above the 50 kDa molecular weight marker (MWM), and the upper half was subjected to immune detection with anti human DDX3X polyclonal antibodies, while the lower half was probed with anti-Actin antibodies, as loading control. Lanes 1, 5: MWM; lane 9: recombinant his-tagged human DDX3X as positive control. B. Increasing amounts in duplicate of A549 (lanes 3-10) total extract were transferred to a

nitrocellulose membrane after SDS-PAGE separation. The membrane was processed as described in panel A. Lane 1: recombinant his-tagged human DDX3X as positive control; lane 2: MWM.

The presence of the double his-tag gives a slower electrophoretic mobility of the recombinant DDX3X with respect to the untagged endogenous protein in both panels.



Supplementary Figure (2). Increasing doses of the compounds **9** and **14**, of Table (1) of the main manuscript file, were incubated in the presence of DDX3X in the fluorescence-based FRET helicase assay under the conditions described in the Methods section. Fluorescence measured in parallel control reactions in the absence of inhibitors were taken as 100% of enzymatic activity. Data are the mean± S.D. of three replicates. ID50 values were calculate as described in the Methods section.



Supplementary Figure (3). Kinetic of Antiviral Activities and cytotoxicity of selected compounds against WNV infected Huh-7 cells. WNV infection of Huh7 cells at MOI of 0.1 in presence of compounds at indicated concentration was assayed with the viral plaque reduction assay. Cell viability of Huh7 cells in the same condition in absence of virus infection was assessed with MTT assay. Data represent means ± standard deviation.