

The Dimeric Peptide (KKYRYHLKPF)₂K Shows Broad-spectrum Antiviral Activity by Inhibiting Different Steps of Chikungunya and Zika Virus Infection

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S1. Determination of the maximum non-toxic concentration (MNTC) in BHK-21 and Vero CCL-81 cells

The cytotoxicity of the (pBthTX-I)₂K peptide was analyzed in BHK-21 cells at 24 hours or 48 hours in Vero cells by the 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assay. The peptide was tested at concentrations of 1.6, 3.1, 6.3, 12.5, 25, 50 and 100 μ M in BHK-21 and Vero cells. The maximum non-toxic concentration (MNTC), expressed in μ M, was defined as the highest concentration of the peptide that maintained at least 80% of the cells viable within 24 hours or 48 hours. Considering the arbitrary threshold of 80% cell viability, the (pBthTX-I)₂K peptide reached its MNTC in BHK-21 cells at 12.5 μ M at 24 hours (Figure S1A) and 25 μ M in Vero cells at 48 hours (Figure S1B).

Figure S1. Cytotoxic effect of the (pBthTX-I)₂K peptide in (A) BHK-21 cells and (B) Vero cells. Black lines represent the arbitrary limit of 80% cell viability. VC: vehicle control (sterile water). Error bars represents \pm standard deviation (SD).

