Supplementary Materials

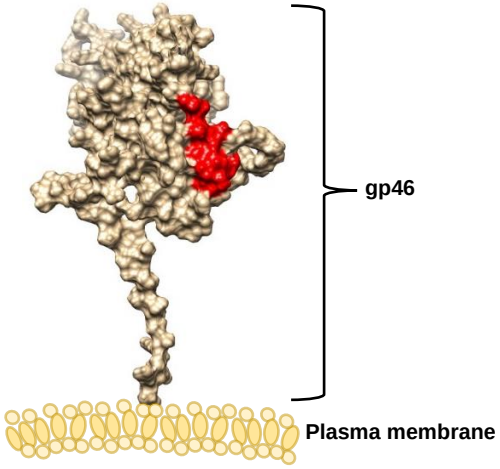

Figure S1. Position of the mAb Clone D epitope sequence (highlighted in red) in a predicted structural model of HTLV-1 gp46 protein monomer.

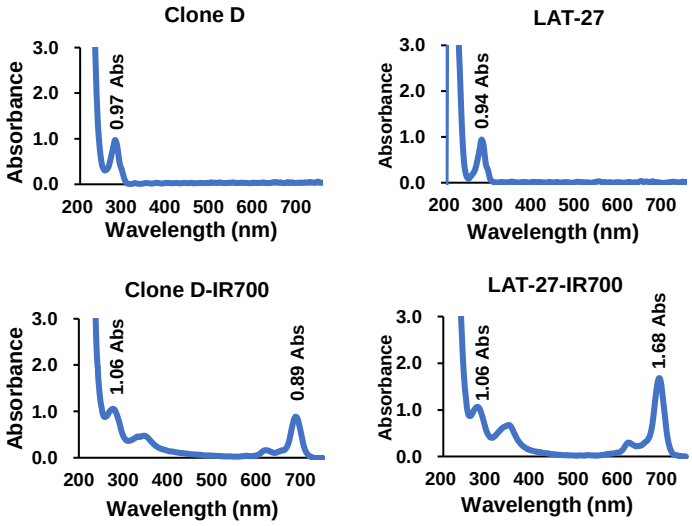

Figure S2. Confirmation of IR700 conjugation efficiency on antibodies intended for use in near-infrared photoimmuno-antimicrobial strategy. Concentrations of antibody and IR700 were determined by absorbance measurement at 280 nm and 689 nm. The mAb bound to the phthalocyanine dye IR700 showed photosensitivity to near-infrared irradiation.

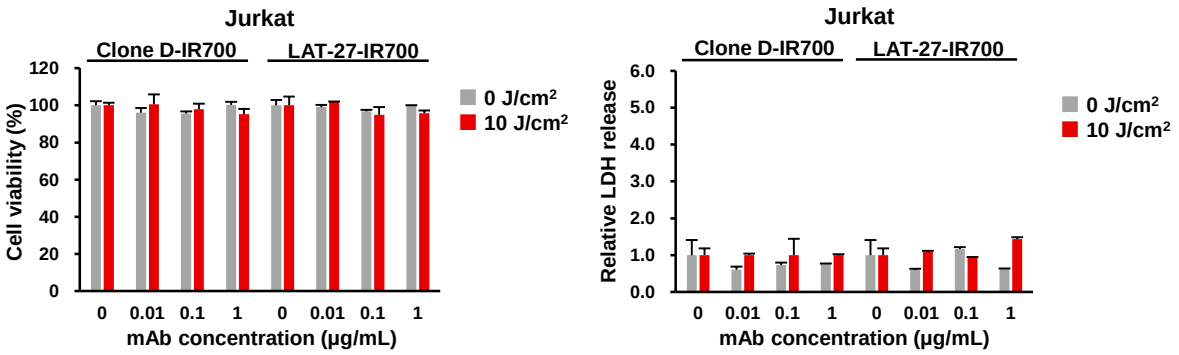

Figure S3. Results of cell viability assays (left) and lactate dehydrogenase (LDH) assays (right) using Clone D-IR700 and LAT-27-IR700 for Jurkat cells. Cell viability assays show the percentage of cell viability is 100% at 0 J/cm^2 and an mAb concentration of 0 μg/mL. LDH assays show relative LDH release normalized at 0 J/cm^2 and mAb concentration of 0 μg/mL. Error bars represent the SD of triplicate testing.

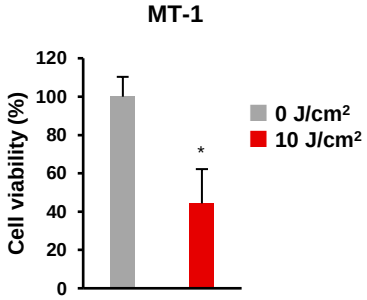

Figure S4. Results of cell viability assays using Clone D-IR700 (1 μg/mL) for MT-1 cells irradiated (10 J/cm^2) or non-irradiated (0 J/cm^2) with near infrared light. Error bars represent the SD of triplicate testing. Significance is indicated by *p*-values, as follows: *$p < 0.01$.

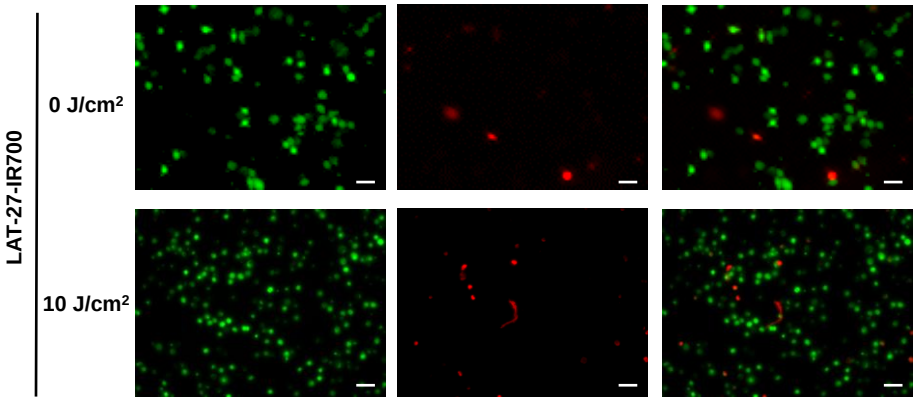

Figure S5. Cell staining of MT-2 cells irradiated (10 J/cm^2) or not irradiated (0 J/cm^2) with near-infrared light after incubation with LAT-27-IR700. Live cells were stained with Calcein (green) and dead cells with EthD-III (red). Scale bar = 20 μm.