Supporting Information

RNAi in *Spodoptera frugiperda* Sf9 Cells via Nanomaterial Mediated Delivery of dsRNA: a Comparison of Poly-L-Arginine Polyplexes and Poly-L-Arginine-Functionalized Au Nanoparticles

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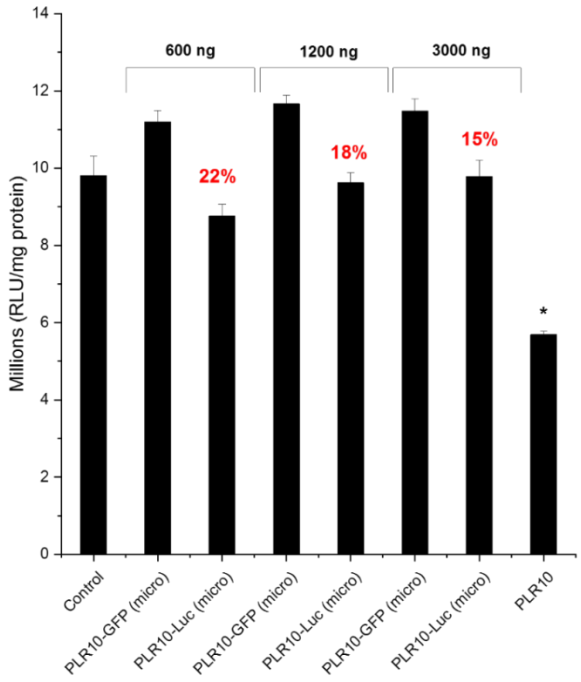
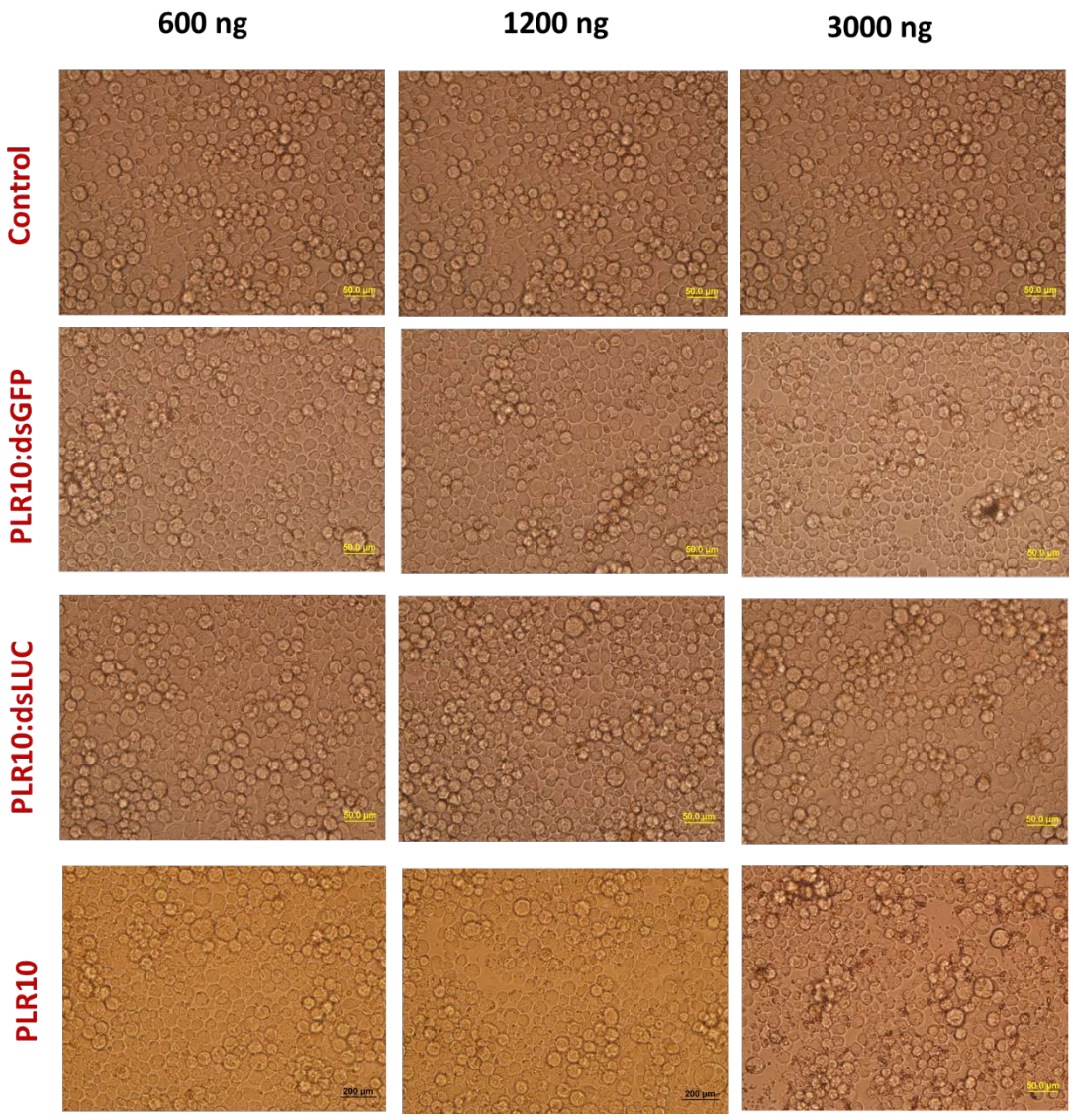


Figure S1. Dose-response luciferase expression assay for PLR10:dsRNA (1:1) micro-polyplexes. 30,000 cells/well were seeded in a 96 well plates then exposed to various amount of PLR10:dsRNA complexes (600, 1200 and 3000 ng) dispersed in 100 µl of SF900 II SFM media.



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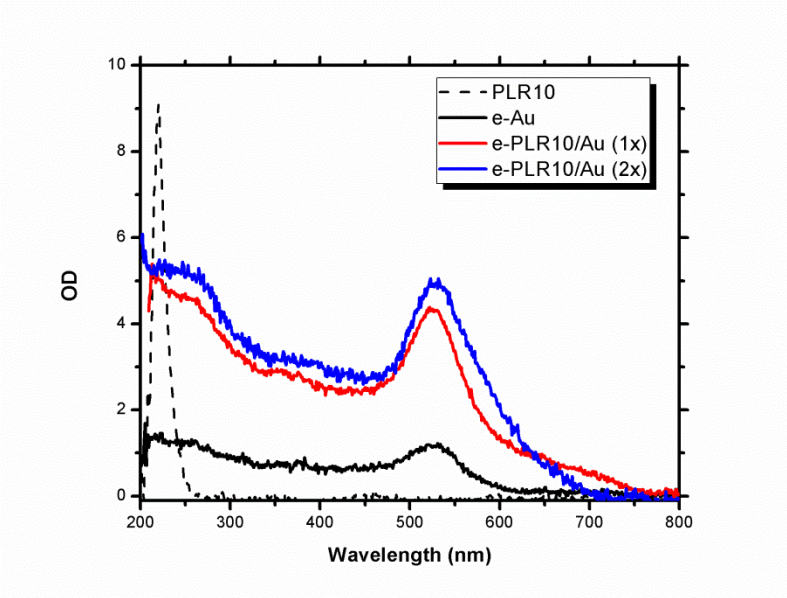
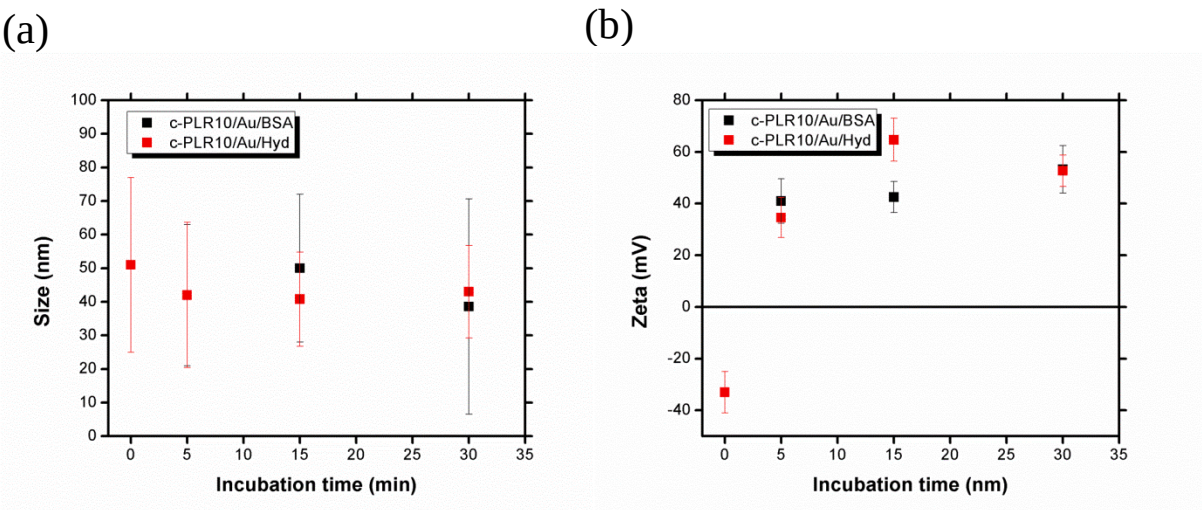


Figure S3. UV-Vis absorbance spectra of PLR10, citrate-Au NPs (e-Au) and citrate-Au NPs after functionalization with PLR10 (e-PLR10/Au) then washing once (1x) or twice (2x) with DI water.



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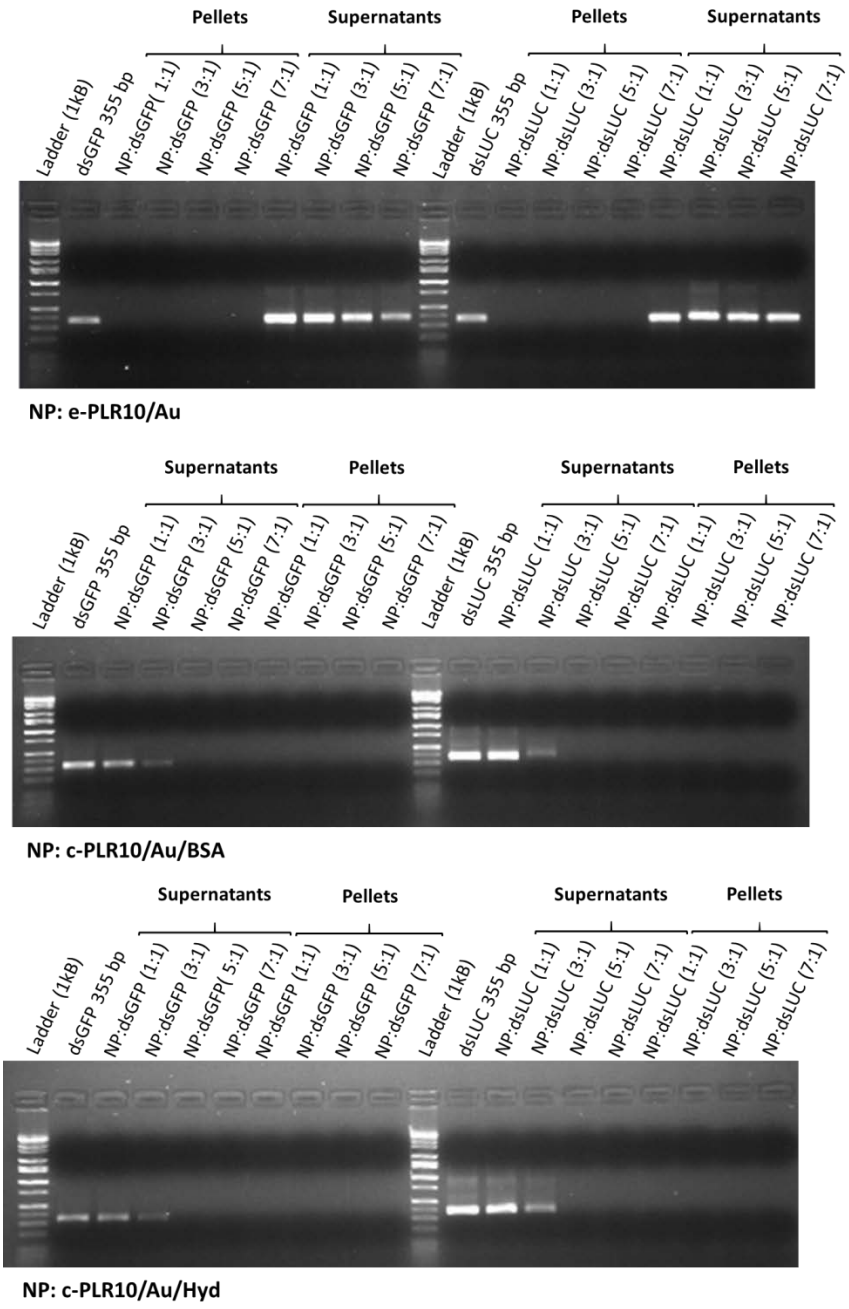

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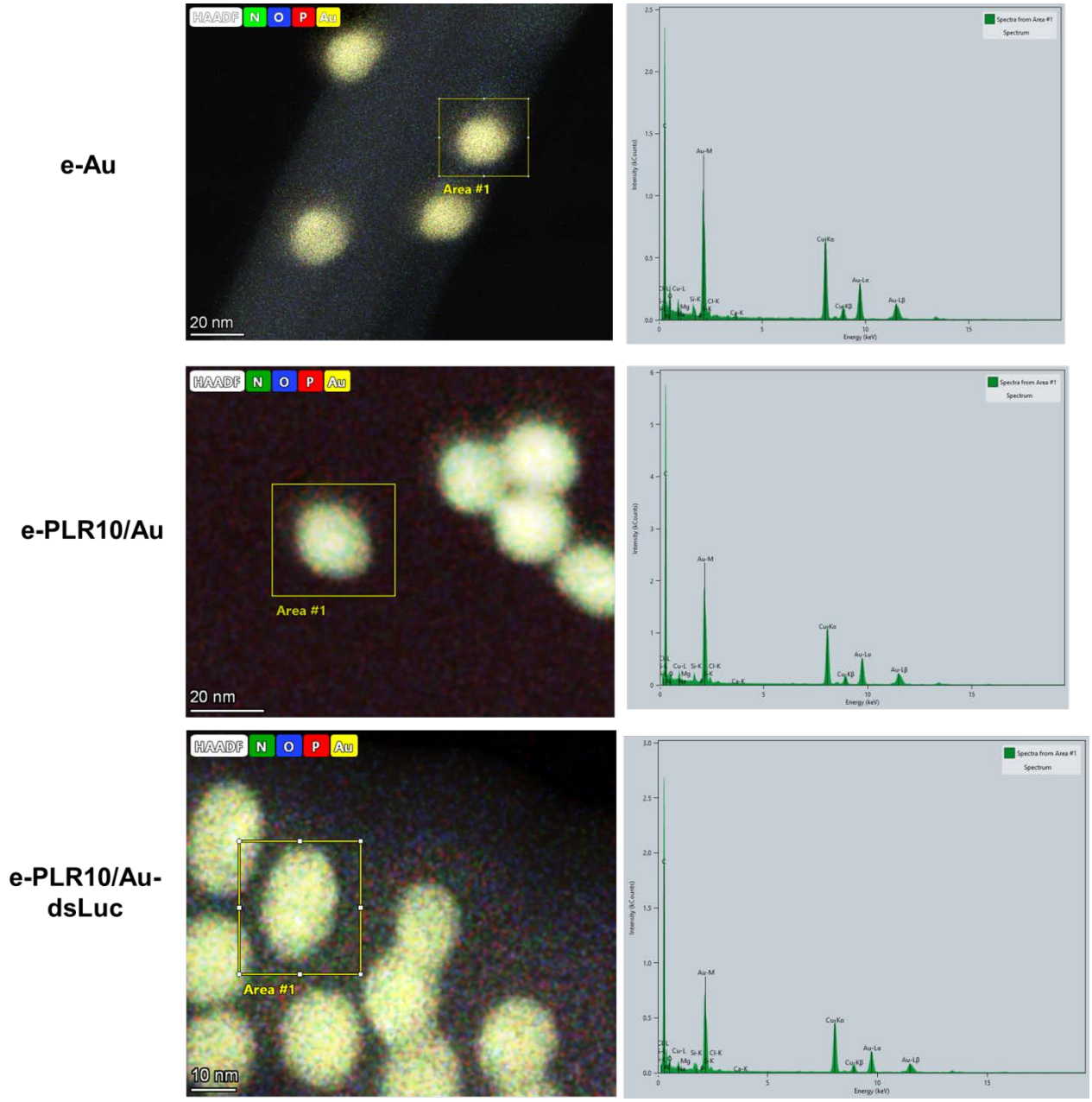

Figure S6. HAADF and EDS spectra of the citrate-Au NPs (e-Au NPs) before/after PLR10 functionalization and loading with dsLUC (NP:dsRNA mass ratio of 5:1).

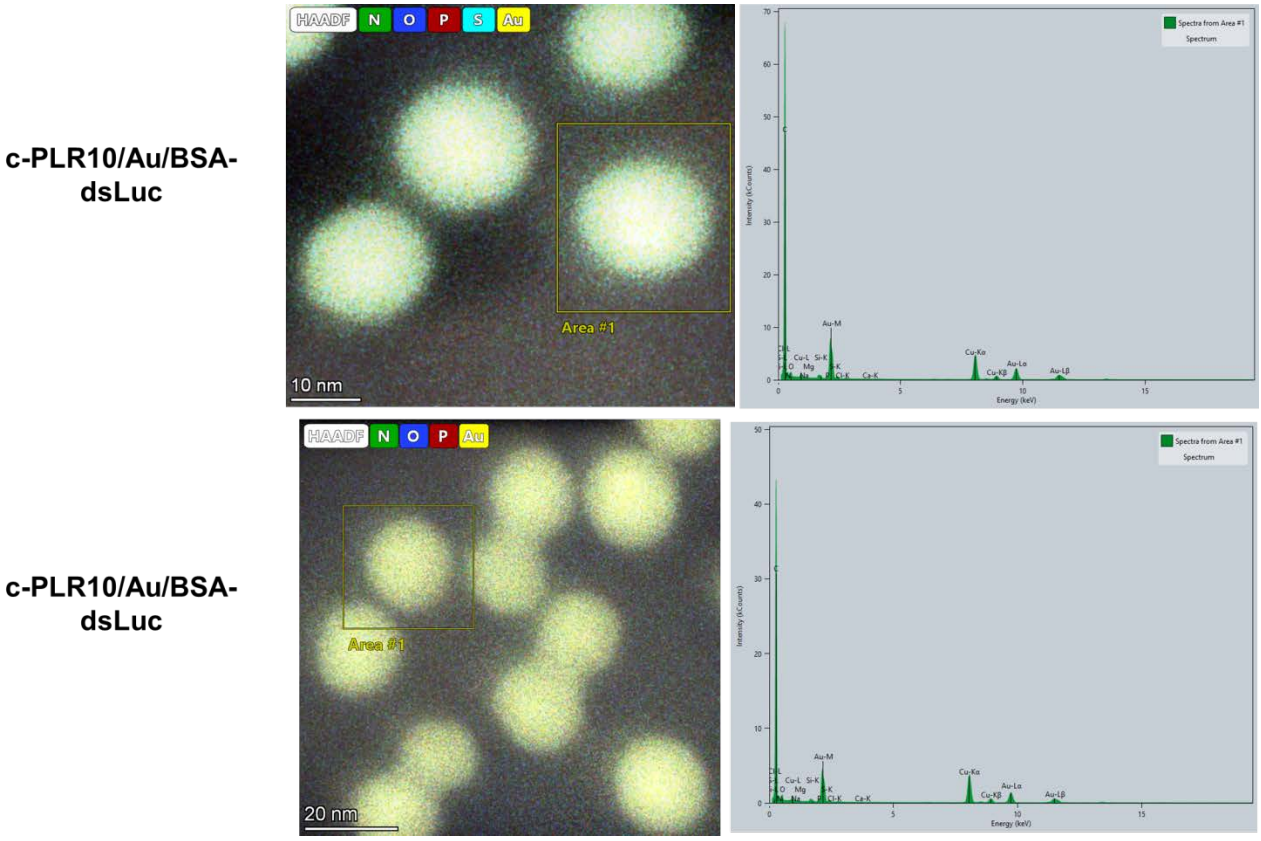

Figure S7. HAADF and EDS spectra of the c-PLR10/Au/BSA and c-PLR10/Au/Hyd NPs loaded with dsLUC (NP:dsRNA mass ratio of 5:1).

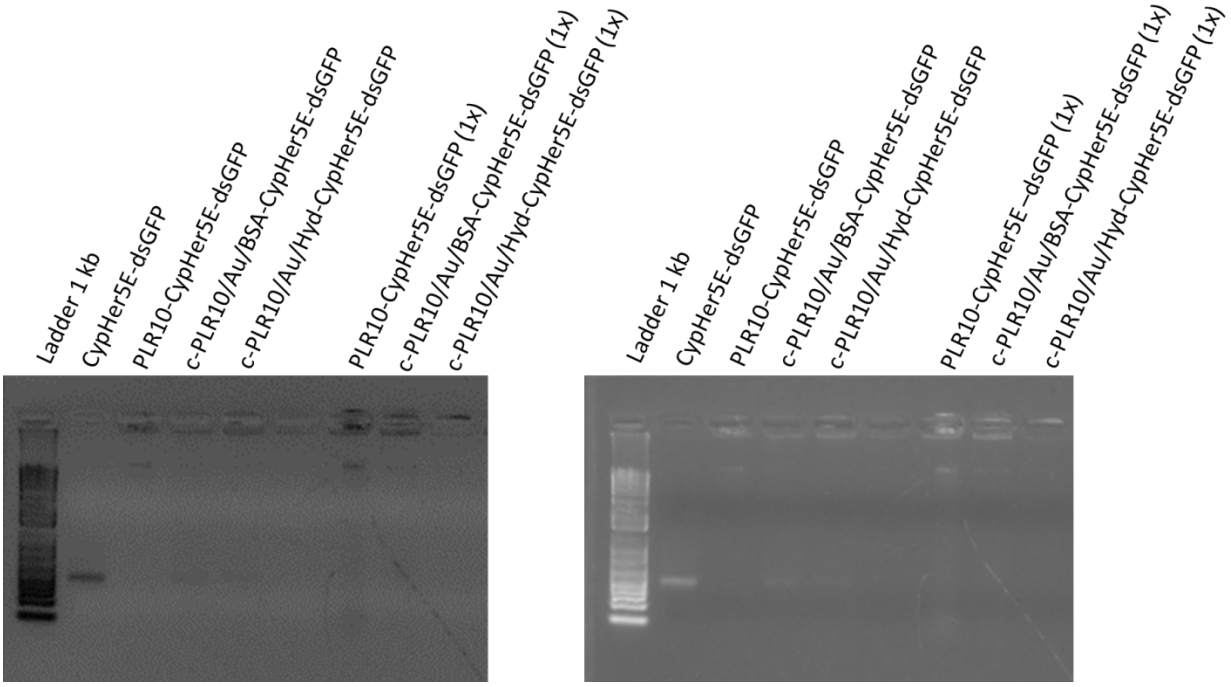

Figure S8. Complexation followed by 1% agarose gel retardation assay of CypHer5E-dsGFP with PLR10 (PLR:dsRNA mass ratio of 1:1), c-PLR10/Au/BSA (NP:dsRNA mass ratio 5:1) and c-PLR10/Au/Hyd (NP:dsRNA mass ratio of 5:1) particles after addition and washing with DI water (1x).