

Electronic Supplementary Information

Efficient delivery of small interfering RNA into cancer cells using dodecylated dendrimers

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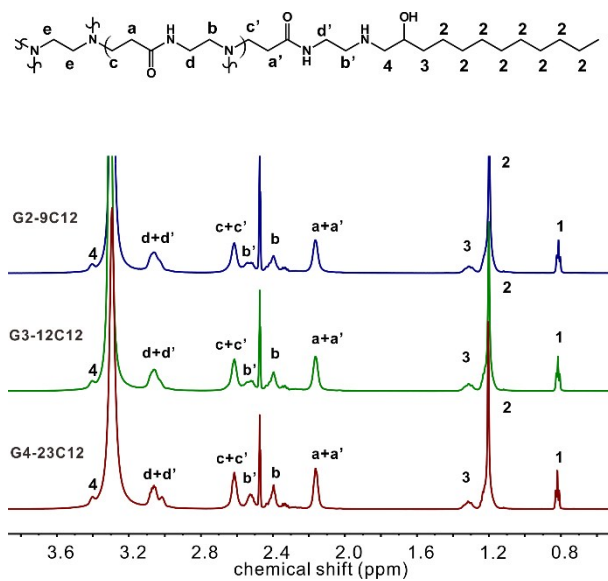


Fig. S1. ^1H NMR spectra of G2-9C12, G3-12C12 and G4-23C12 in dimethyl sulfoxide- d_6 . The chemical structures of dodecylated dendrimers with proton labeling is shown above the NMR spectra.

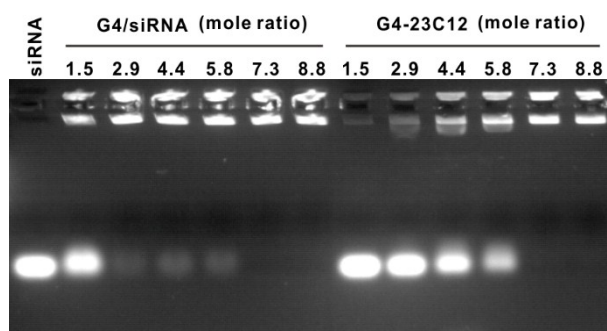


Fig. S2. siRNA binding capacity of G4-23C12 and unmodified G4 PAMAM dendrimer analyzed by agarose gel electrophoresis. The complexes were prepared at various dendrimer/siRNA molar ratios. G4 dendrimer shows higher siRNA binding ability than G4-23C12, which is due to decreased charge density on G4 dendrimer after dodecylation.

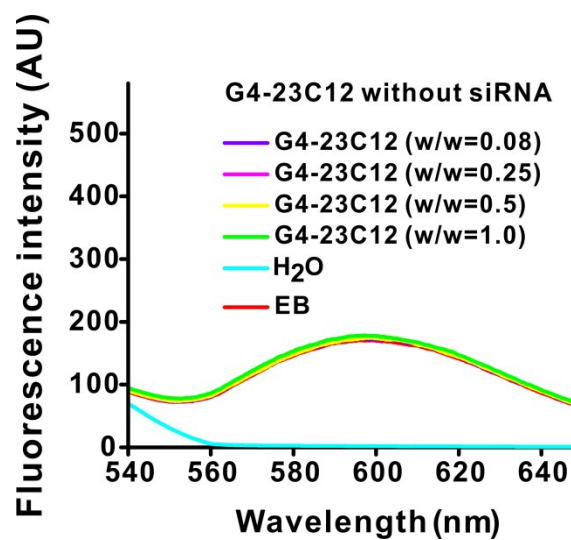


Fig. S3. The effect of G4-23C12 on the fluorescence intensity of EB. The addition of different amounts of G4-23C12 only slightly influences the fluorescence intensity.

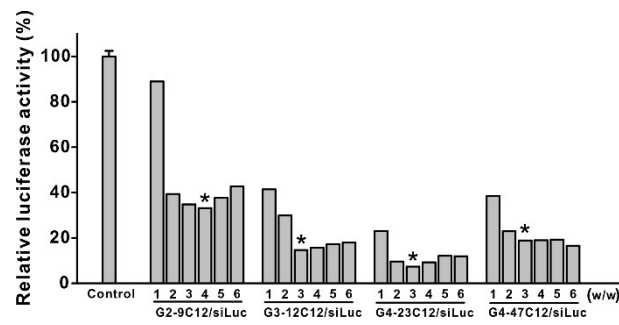


Fig. S4. Gene silencing efficiencies of G2-9C12, G3-12C12, G4-23C12 and G4-47C12 with 50 nM siLuc in HeLa-Luc cells at different weight ratios (w/w) after 24 h incubation. *Represents the optimal gene silencing w/w ratio.

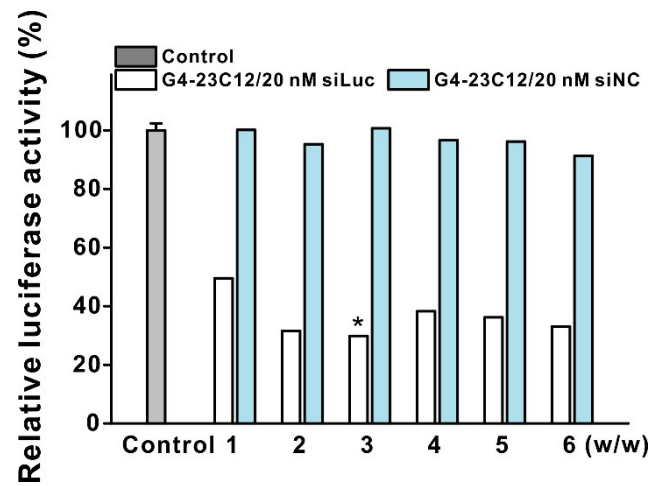


Fig. S5. Gene silencing efficiencies of G4-23C12 with 20 nM siLuc in HeLa-Luc cells at different weight ratios (w/w) after 24 h incubation. siNC is tested as a negative control. *Represents the optimal gene silencing w/w ratio.

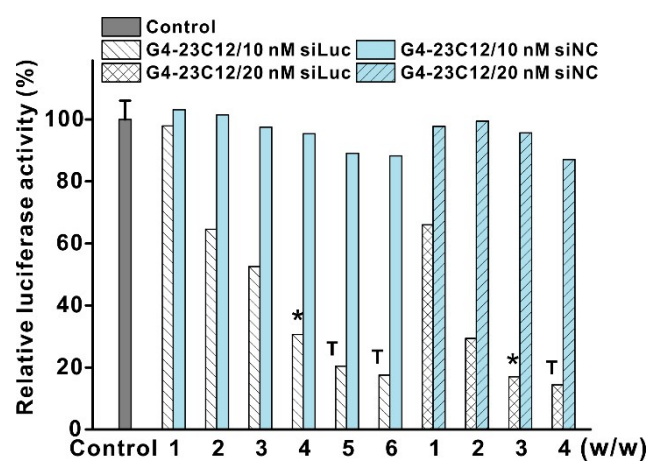


Fig. S6. Gene silencing efficiencies of G4-23C12 with 10 or 20 nM siLuc in MDA-MB231-Luc cells at different weight ratios (w/w) after 24 h incubation. siNC is tested as a negative control. *Represents the optimal gene silencing w/w ratio. ^TRepresents toxicity on the transfected cells.

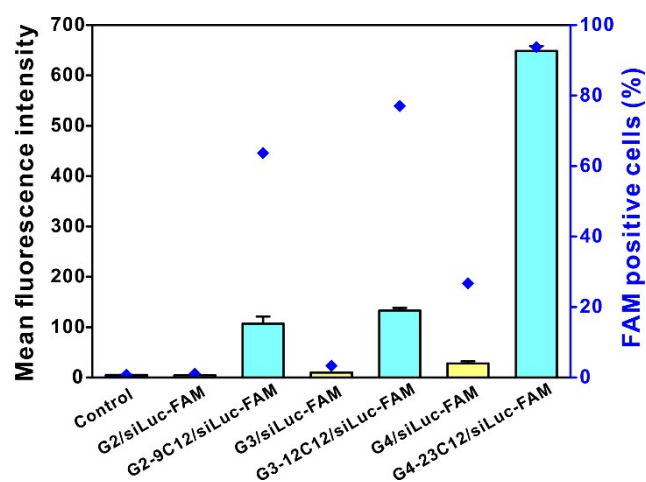


Figure S7. Cellular uptake efficacy of dodecylated dendrimer/siLuc complexes by HeLa-Luc cells for 4 h. Unmodified dendrimer/siLuc complexes are tested as controls. The mole ratios of G2-9C12/siLuc, G3-12C12/siLuc and G4-23C12/siLuc are 11, 4.5 and 2.2, respectively (w/w=4, 3 and 3, respectively).