Lipoplexes of dicationic gemini surfactants with DNA: Structural features of DNA compaction and transfection efficiency

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Abstract

© 2015, Pleiades Publishing, Ltd. The internal structure of DNA lipoplexes with hydroxyethylated alkylammonium gemini surfactants (GS) with high transfection activity was studied by circular dichroism. It was shown that the efficiency of transfection of HEK293T cells with the pEGFP-N1 circular plasmid was different from zero only in the region of existence of chiral supramolecular DNA-GS complexes and reaches a maximum at concentrations at which the spontaneous aggregation of components is observed.

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