

Title (en)
NON-VIRAL TRANSFECTION AGENT

Title (de)
NICHT-VIRALES TRANSFEKTIONSMITTEL

Title (fr)
VECTEUR DE TRANSFECTION NON VIRAL

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Application
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Abstract (en)
[origin: WO2010086406A1] The invention relates to a non-viral transfection agent comprising polymer/nucleic acid complexes and nanofibers, wherein the polymer/nucleic acid complexes are composed of at least one nucleic acid and at least one cationic polymer. The nanofibers carry the polymer/nucleic acid complexes, wherein the non-viral transfection agent is advantageously produced by means of electrospinning. The cationic polymer is favorably a polyimine or polyethyleneimine and can be modified with one or more hydrophilic polymers coupled thereto. It can also be advantageous to couple the cationic polymer with one or more carbohydrates and/or with a receptor-specific ligand. The nucleic acid is a DNA or an RNA, or a DNA or RNA derivative, advantageously a therapeutically active nucleic acid. The nanofibers are composed of biodegradable, biocompatible polymers. The nanofibers or the entire transfection agent can be provided with a polymer coating. A method for producing a non-viral transfection agent comprises the following steps: providing the polymer/nucleic acid complex, producing a spinning solution containing the polymer/nucleic acid complexes, and electrospinning.

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Citation (examination)
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