

Nanopreparation for Co-Delivery of Drugs And siRNA

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Description

Currently, many siRNA delivery technologies are available. However, it is extremely challenging to use these technologies for various therapeutic applications. Some of the most common challenges are associated with effective and non-toxic delivery of siRNA to the site of action, as well as effective transfection into the target cells. Degradation by endogenous enzymes, large size and high negative charge are some of the major issues associated with siRNAs. **This invention discloses a novel nano-preparation for co-delivery of drugs and siRNA moieties.**

Value Proposition

The nano-preparation:

- Comprises a novel tri-block co-polymeric system
- Exhibits an excellent serum stability and protection of condensed siRNA against enzymatic degradation
- Has an enhanced cell penetration resulting in efficient transfection as compared to conventional approaches
- Is lesser cyto-toxic and immunogenic in the systemic circulation as compared to conventional formulations
- Allows for a significantly higher cellular uptake of siRNA as compared to conventional compositions
- Exhibits a higher micellization ability with a higher drug loading efficiency
- Would be commercially useful for treatment of various indications such as multi-drug resistant cancer

Intellectual Property Status

Provisional Application 61/680,340

License Status

Available for license

