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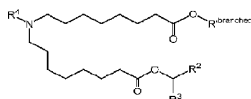
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(54) Title: HEADGROUP LIPID COMPOUNDS AND COMPOSITIONS FOR INTRACELLULAR DELIVERY OF THERAPEUTIC AGENTS



(A-1)

(57) Abstract: The application relates to lipids of Formula (A-1) and compositions involving the same. Lipid nanoparticles (e.g., empty LNPs or loaded LNPs) include such a lipid as well as additional lipids such as phospholipids, structural lipids, and PEG lipids. Lipid nanoparticles (e.g., empty LNPs or loaded LNPs) further including therapeutic and/or prophylactics such as RNA are useful in the delivery of therapeutic and/or prophylactics to mammalian cells or organs to, for example, regulate polypeptide, protein, or gene expression.

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