

ABSTRACT

An ionizable lipid molecule, a preparation method therefor and a use thereof. Specifically, provided are a compound represented by formula I, and a stereoisomer, tautomer, pharmaceutically acceptable salt, prodrug or solvate thereof. The definition of each group in the formula is as described in the description. Also provided is a lipid nanoparticle, containing the ionizable lipid compound represented by formula (I). Further provided are a composition and a related use. The compound of formula I can be used to prepare the lipid nanoparticle for delivering a nucleic acid therapeutic agent or an active agent in vivo and in vitro.

