

## **ABSTRACT**

The present application provides a novel cationic lipid compound, which can be applied to a lipid nanoparticle, and the lipid nanoparticle is capable of targeting different tissues and organs for drug delivery. Further, the lipid nanoparticle may further comprise at least one helper lipid. The novel cationic lipid compound or a lipid nanoparticle composition comprising the same is capable of specifically delivering a prophylactic/therapeutic agent, particularly a nucleic acid component, to a target organ.