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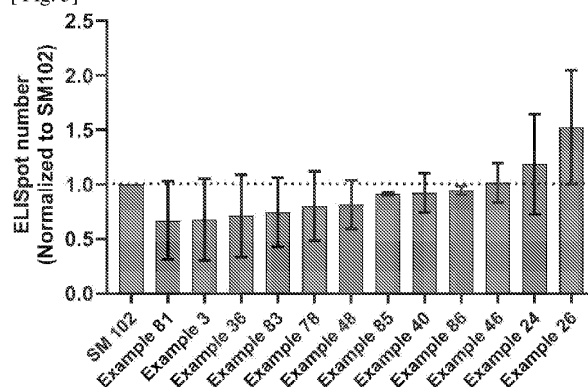
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(54) Title: IONIZABLE LIPIDS AND LIPID NANOPARTICLES FOR RNA DELIVERY

[Fig. 5]



(57) Abstract: Provided herein is novel ionizable cationic lipid compound that can be assembled with other helper lipids, such as phospholipids, structural lipids, and polymer conjugated lipids capable of reducing aggregation, to form lipid nanoparticles for delivery of therapeutic RNA both in vitro and in vivo. These compounds contain a thiourea group in the linker between the lipid group and the head group (-NRc-C(S)-NRd-).