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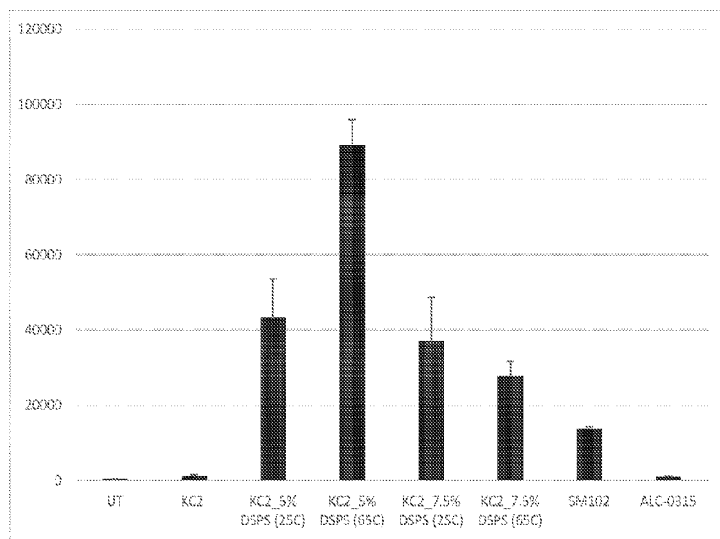
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(54) Title: LIPID NANOPARTICLES FOR DELIVERY OF NUCLEIC ACIDS, AND RELATED METHODS OF USE

FIG. 15 (Example 24).



(57) Abstract: The present disclosure provides for improved compositions of ionizable lipid nanoparticles for the delivery of therapeutic nucleic acids to cells. Cationic ionizable lipids are engineered with improved stability to oxidative degradation while in storage, while retaining high transfection activity or potency in cells. These lipids are designed to be biodegradable, thus improving the tolerability of nanoparticles formed with them *in vivo*. In addition, targeting of these nanoparticles in a highly specific manner to dendritic cells is provided for through inclusion of antibody conjugates directed against cell surface receptors.

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