Electronic Supplementary Material (ESI) for New Journal of Chemistry.

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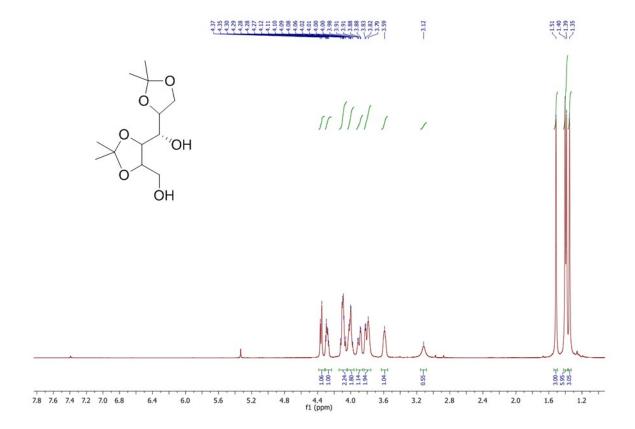
## Dramatic Influence of Hydroxy Functionality of Azasugar Moiety in the Head Group Region of Tocopherol Based Cationic Lipids on the *In-vitro* Gene Transfection Efficacies

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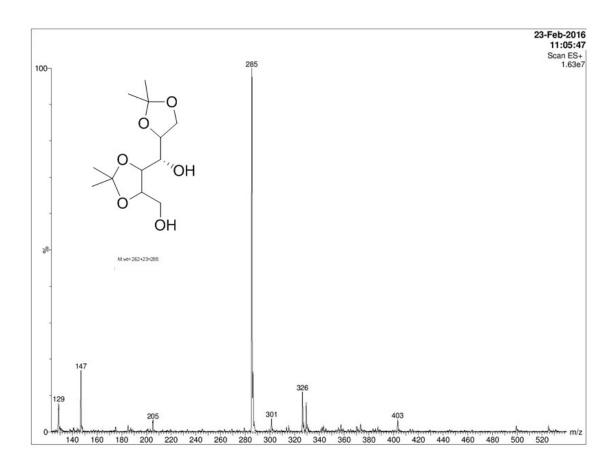
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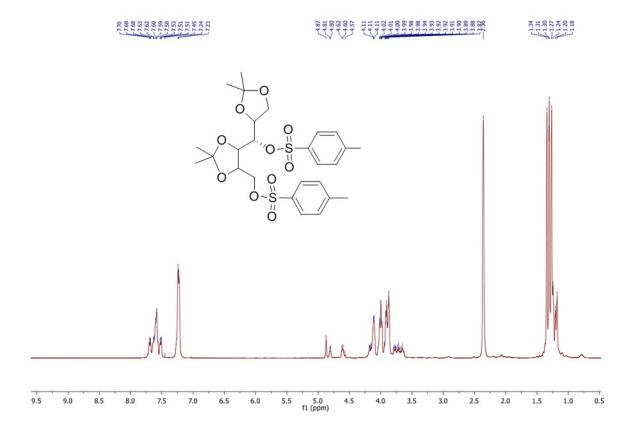
Spectra



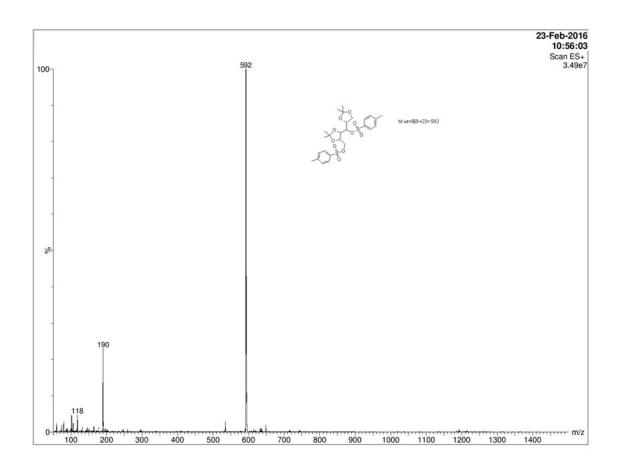
<sup>1</sup>H NMR Spectra of Intermediate 1A, Scheme 1



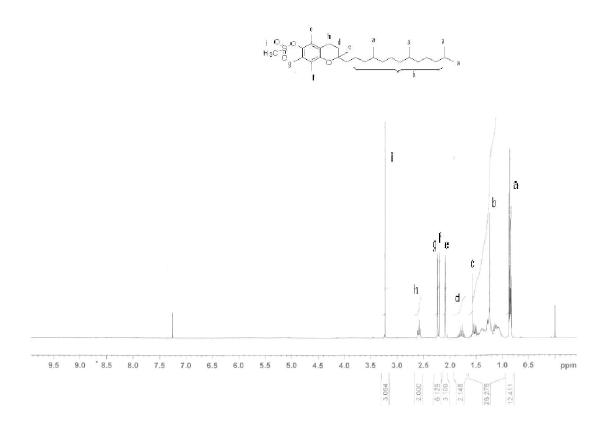
ESI-Mass Spectra of Intermediate 1A, Scheme 1



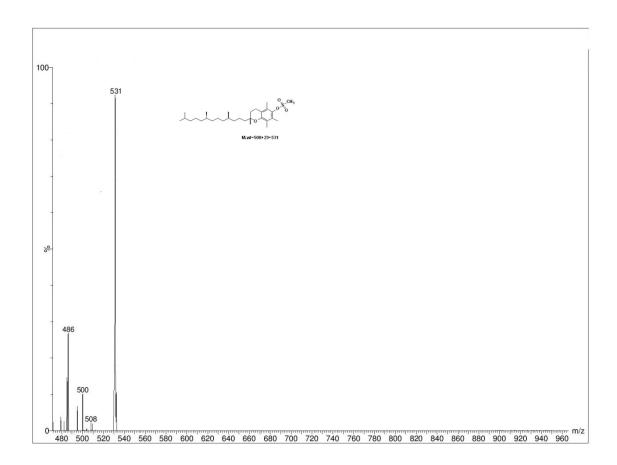
<sup>1</sup>H NMR Spectra of Intermediate 1B, Scheme 1



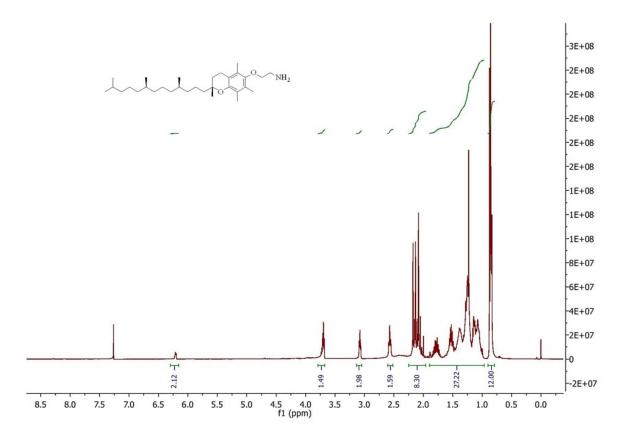
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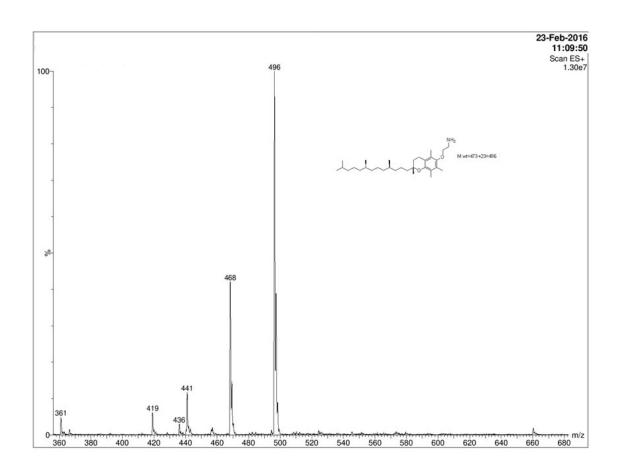
<sup>1</sup>H NMR Spectra of Intermediate 1C, Scheme 1



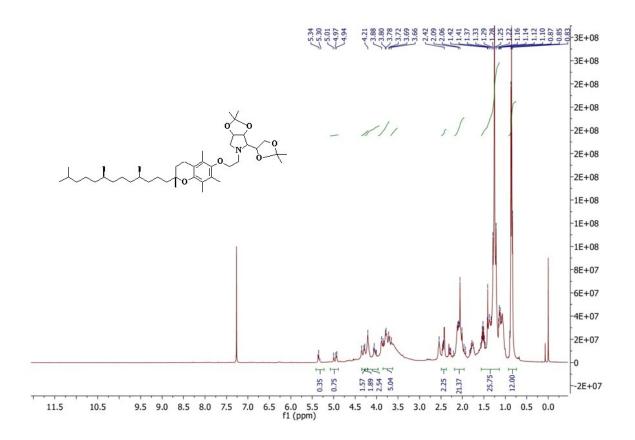
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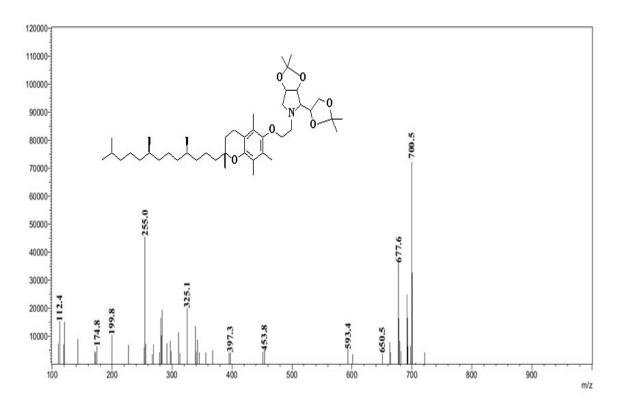
<sup>1</sup>H NMR Spectra of Intermediate 1D, Scheme 1



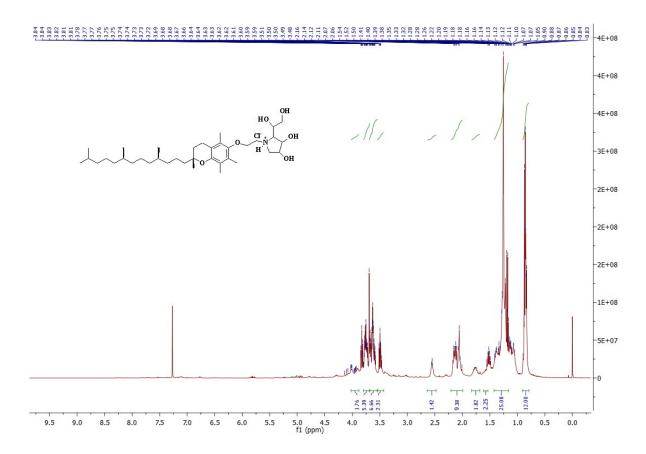
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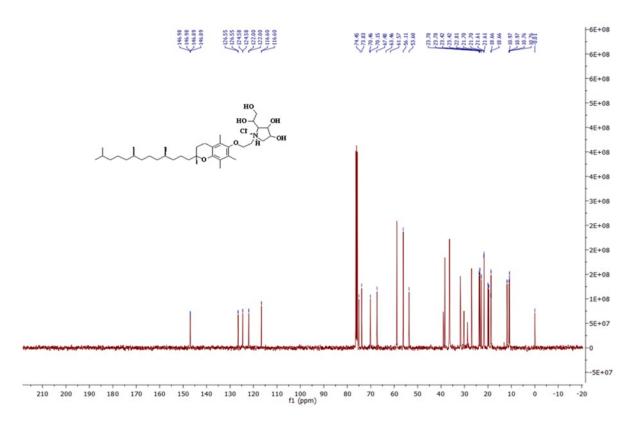
<sup>1</sup> H NMR Spectra of Lipid (1F) Toc-Aza



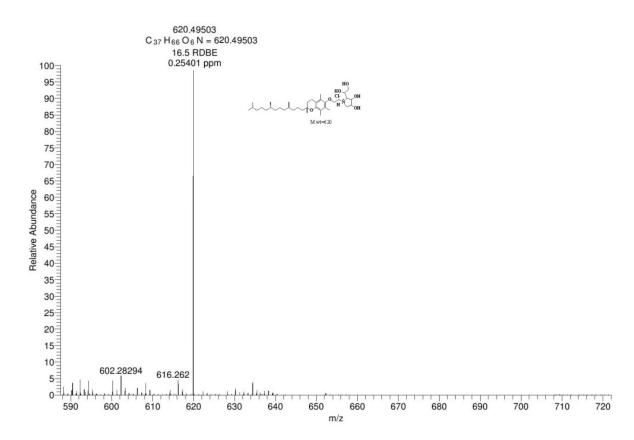
ESI-Mass Spectra of Intermediate 1E, Scheme 1



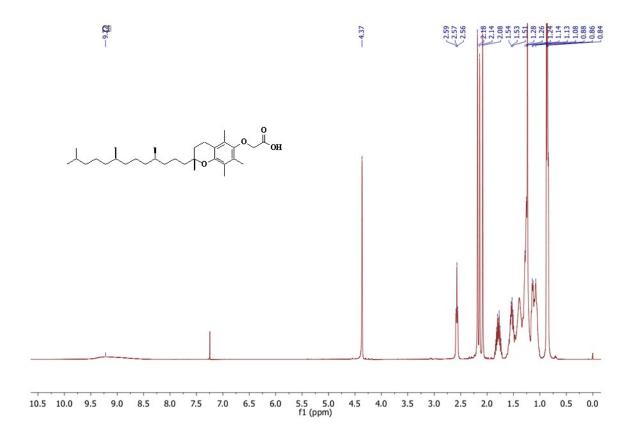
<sup>1</sup> H NMR Spectra of Lipid (1F) Toc-Aza



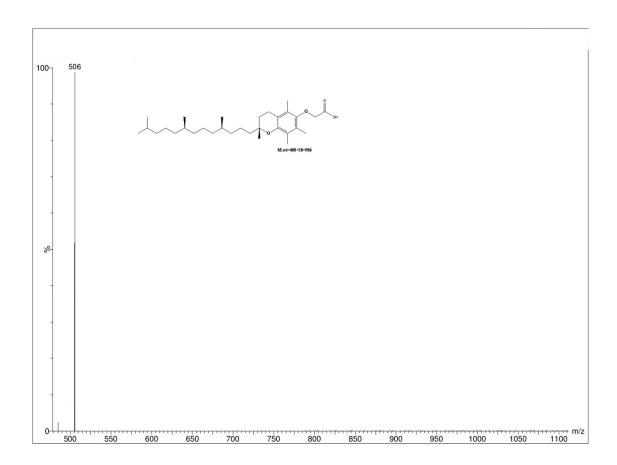
<sup>13</sup>C NMR Spectra of (1F) Lipid Toc-Aza



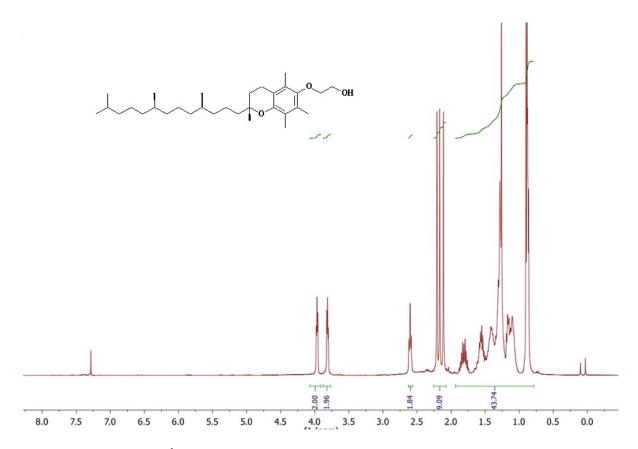
ESI-HRMS Mass of lipid (1F) Toc-Aza



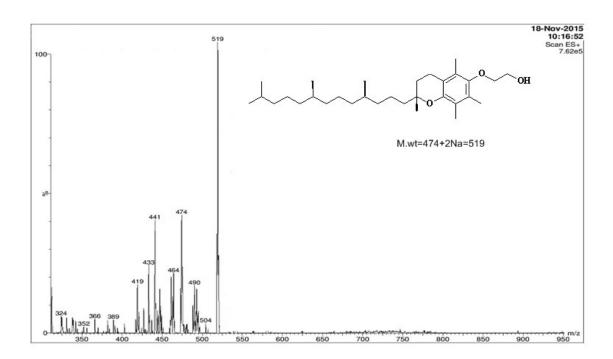
<sup>1</sup>H NMR Spectra of Intermediate 2A, Scheme 2



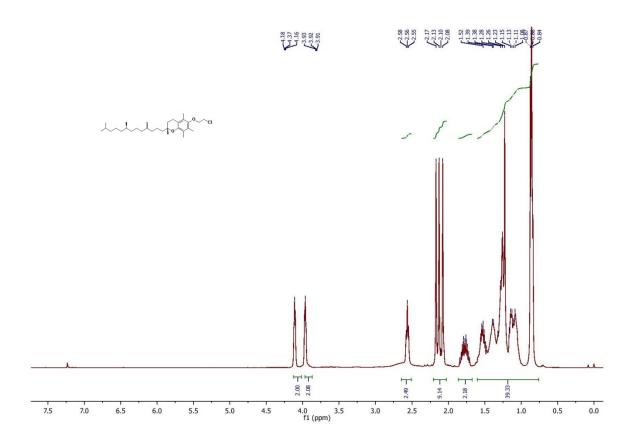
ESI-Mass Spectra of Intermediate 2A, Scheme 2



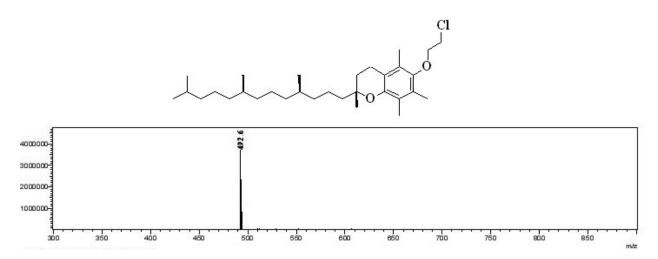
<sup>1</sup>H NMR Spectra of Intermediate 2B, Scheme 2



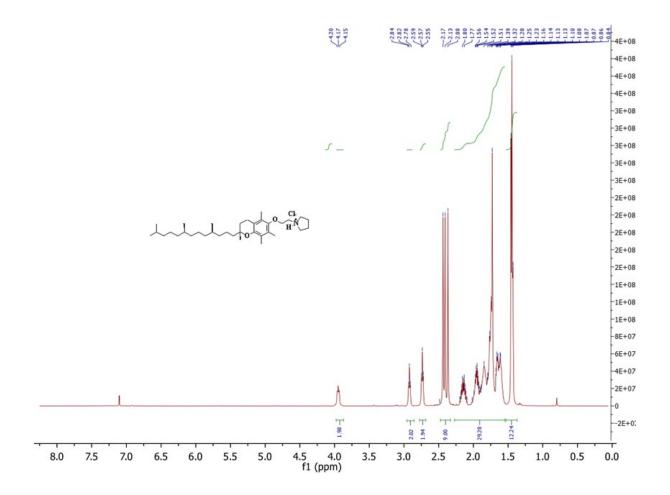
ESI-Mass Spectra of Intermediate 2B, Scheme 2



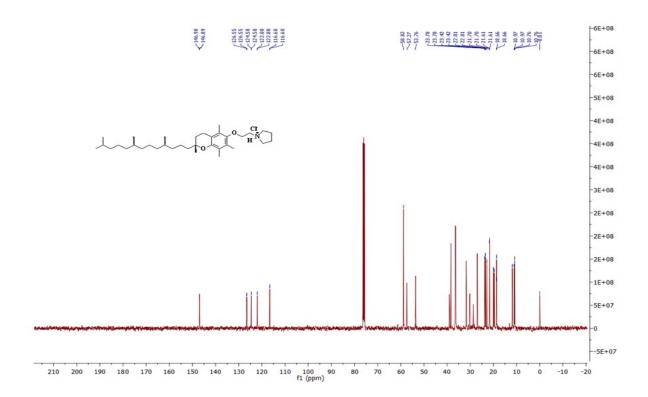
<sup>1</sup>H NMR Spectra of Intermediate 2C, Scheme 2



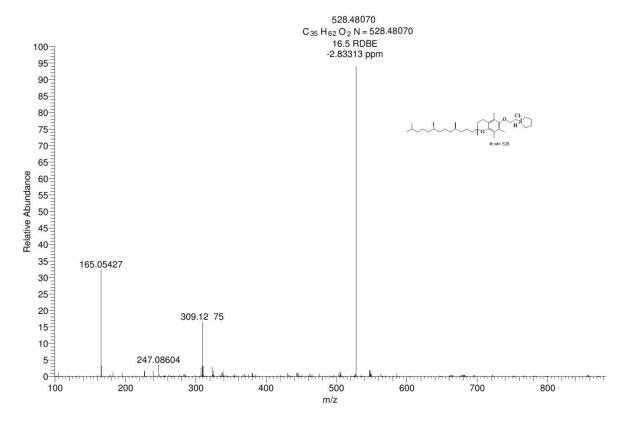
ESI-Mass Spectra of Intermediate 2C, Scheme 2



<sup>1</sup>H NMR Spectra of Toc-pyrr Lipid



<sup>13</sup> C NMR Spectra of Toc-pyrr Lipid



**ESI-HRMS-Mass Spectra of Toc-pyrr Lipid** 

## HPLC purity of Lipids Toc-Aza and Toc-Pyrr

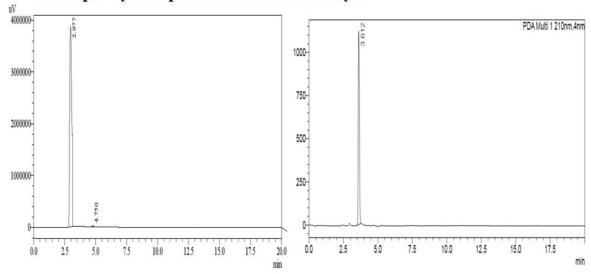


Figure **X**. RP-HPLC Chromatograms for Lipids **Toc-Aza and Toc-Pyrr** obtained using 100% methanol's as mobile phase.

## **HPLC Conditions:**

System: Shimadzu Lab Solutions

**Column:** Microsorb® 100, RP-18e (10 μm),125 x 4 mm

**Mobile Phase:** 100% Methanol.

Flow Rate: 1.0 mL/min

**Typical Column Pressure:** 50-55 Bars

**Detection:** UV at 263 nm