

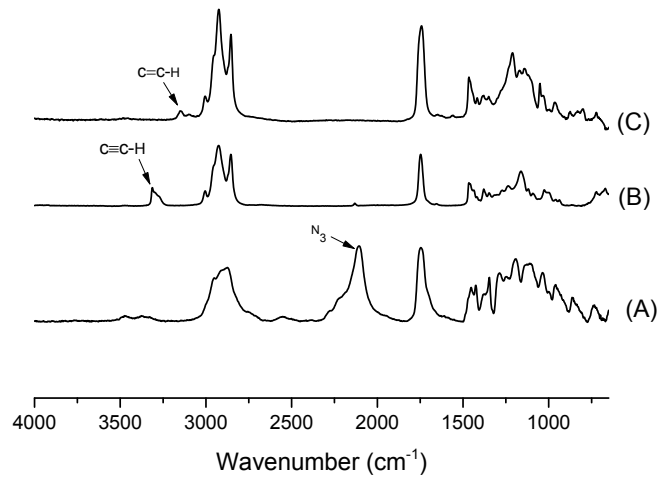
**Electronic Supporting Information for**

**PEG-lipid Telechelics Incorporating Fatty Acids from Canola Oil:  
Synthesis, Characterization and Solution Self-assembly**

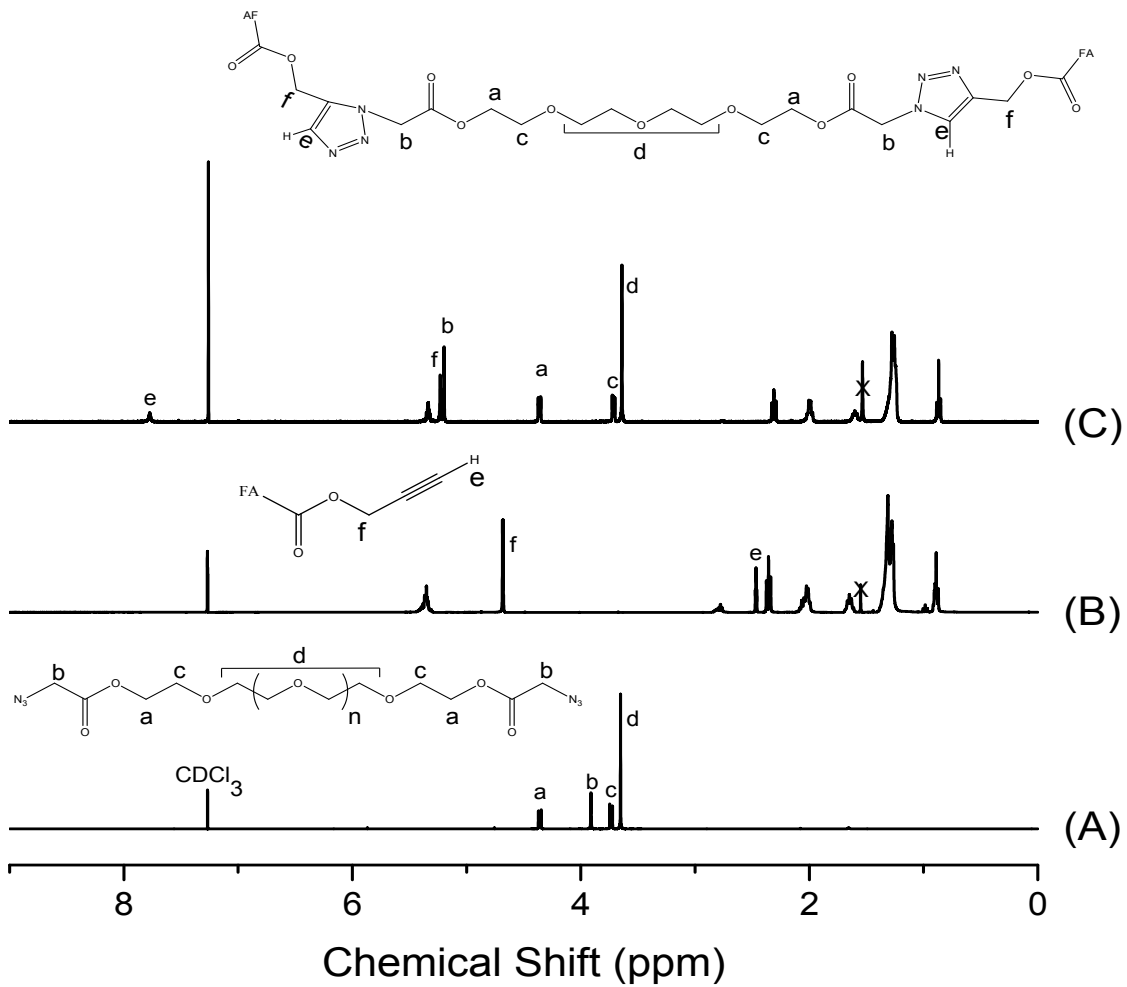
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**Figure S1.** FTIR spectra of PEG-N<sub>3</sub> (A), CPE (B), & CPE-PEG (C)



**Figure S2.** <sup>1</sup>H-NMR spectra of PEG-N<sub>3</sub> (A), CPE (B), & CPE-PEG Triazole (C)

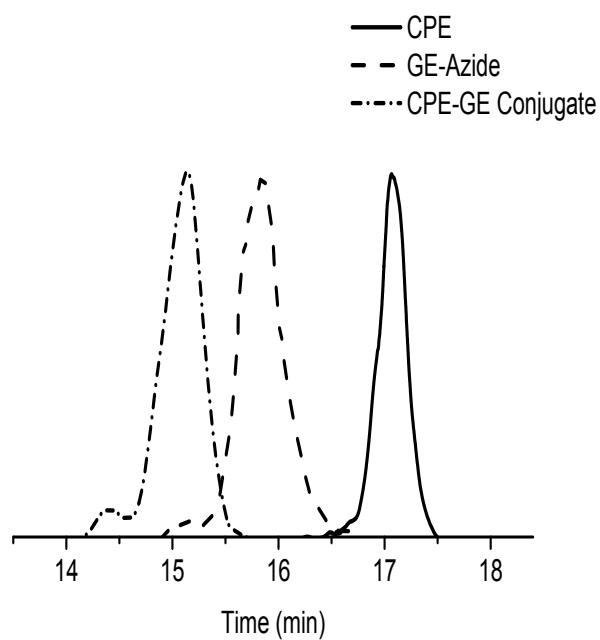
The quantitative measurement of methyl ester of oleic acid (CME-1), linoleic acid (CME-2) and linolenic acid (CME-3) was carried out by comparing integral values of their different protons in the spectrum. The amount of CME-3 calculated with the identification of its terminal methyl labelled as 9 (Fig. 1), which was found to be 0.01 for one proton. The presence of linoleic (CME-2) and linolenic (CME-3) methyl esters was confirmed by multiplet peak due to the methylene protons present in between the unsaturated methine protons labeled as number 7 in Fig. 1. This was used to calculate the ratio of CME-2 in comparison to CME-3. This multiplet comprises of four methylene protons of CME-3 and two methylene protons of CME-2 with 0.18 integral values. Thus contribution of one proton of CME-2 will be 0.07 after subtracting the integral value of four methylene protons of CME-3. Finally, the integral value for one proton of CME-1 was determined by considering the singlet due to methoxy protons (labelled as 11) of all three methyl esters. From the integral value (1.0) of these methoxy protons, the contribution of one proton of CME-1 was found to be 0.253. Thus the ratio obtained for CME-1 (0.01), CME-2 (0.07), and CME-3 (0.253) was used to calculate their percentage in the mixture of canola methyl esters, which is as follows;

$$\text{Percentage of CME-1} = 0.253 \div (0.253 + 0.07 + 0.01) \times 100 = 76$$

$$\text{Percentage of CME-2} = 0.07 \div (0.253 + 0.07 + 0.01) \times 100 = 21$$

$$\text{Percentage of CME-3} = 0.01 \div (0.253 + 0.07 + 0.01) \times 100 = 3$$

Figure S3, shows successful conjugation of CPE with GE-N<sub>3</sub> *via* click reaction.



**Figure S3.** Gel permeation chromatography (GPC) traces of CPE ( $M_n = 210 \text{ g mol}^{-1}$ ), GE-N<sub>3</sub> ( $M_n = 1037 \text{ g mol}^{-1}$ ), and GE-CPE conjugated triazole ( $M_n = 2727 \text{ g mol}^{-1}$ ).