

pH - Sensitive Amphiphilic Diblock Polyphosphoesters with Lactate Units: Synthesis and Application as Drug Carriers

Kasumi Mochizuki¹, Violeta Mitova³, Kimiko Makino¹, Hiroshi Terada^{1†}, Issei Takeuchi^{1,2},
and Kolio Troev^{1,3*}

¹ Faculty of Pharmaceutical Sciences, Tokyo University of Science, 2641, Yamazaki, Noda 278-8510, Chiba, Japan

² Faculty of Pharmaceutical Science, Josai International University, 1 Gumyo, Togane 283-8555, Chiba, Japan

³ Institute of Polymers, Bulgarian Academy of Sciences, 1113 Sofia, Bulgaria

*Correspondence: ktroev@polymer.bas.bg (K.T.)

† Deceased author.

Supplementary data

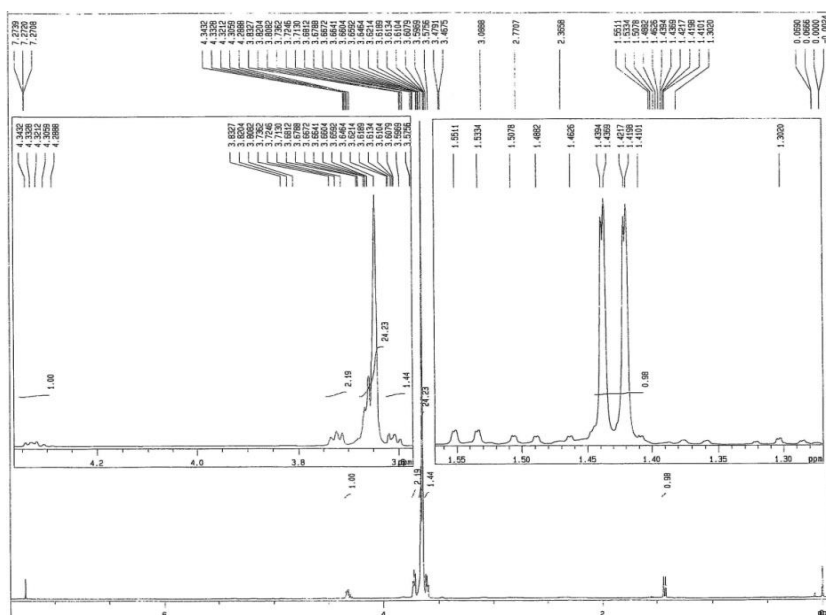
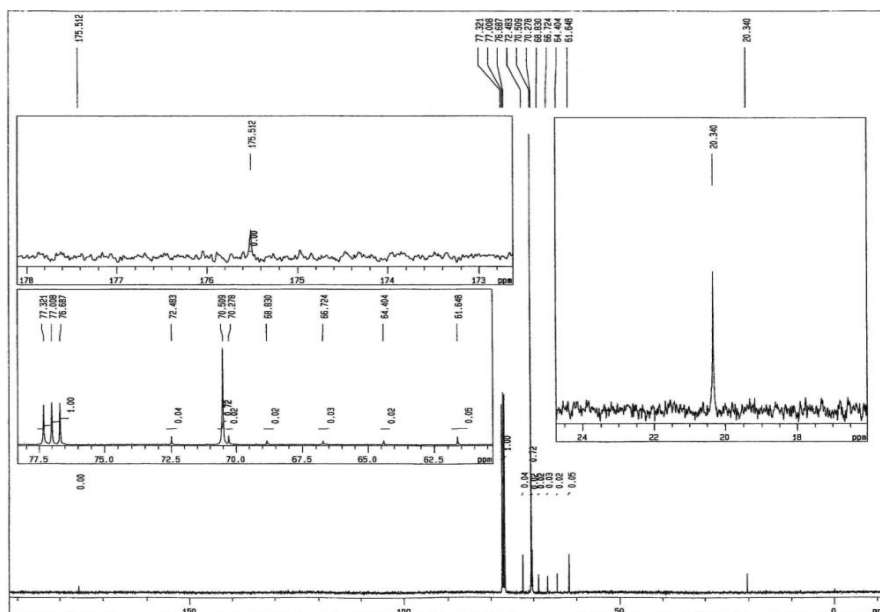


Figure S1. ¹H NMR spectrum of the reaction product obtained from poly(ethylene glycol) and ethyl lactate.



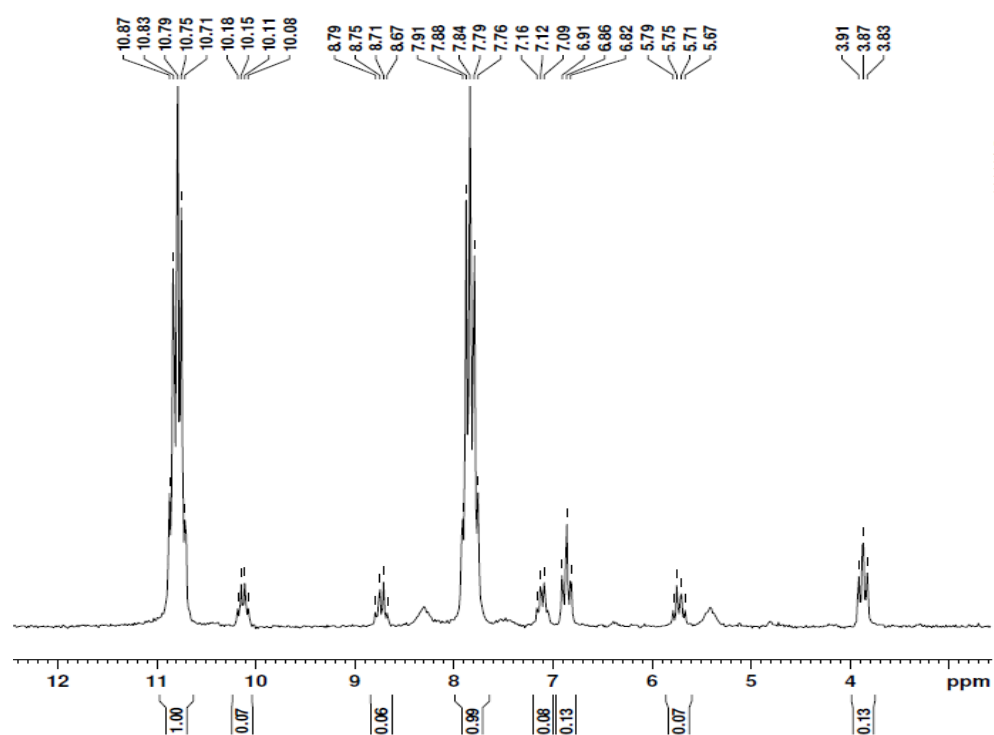


Figure S4. ^{31}P -NMR spectra of poly[poly(ethylene glycol) H-phosphonate-*b*-poly(ethylene glycol)lactate H-phosphonate] in CDCl_3 .

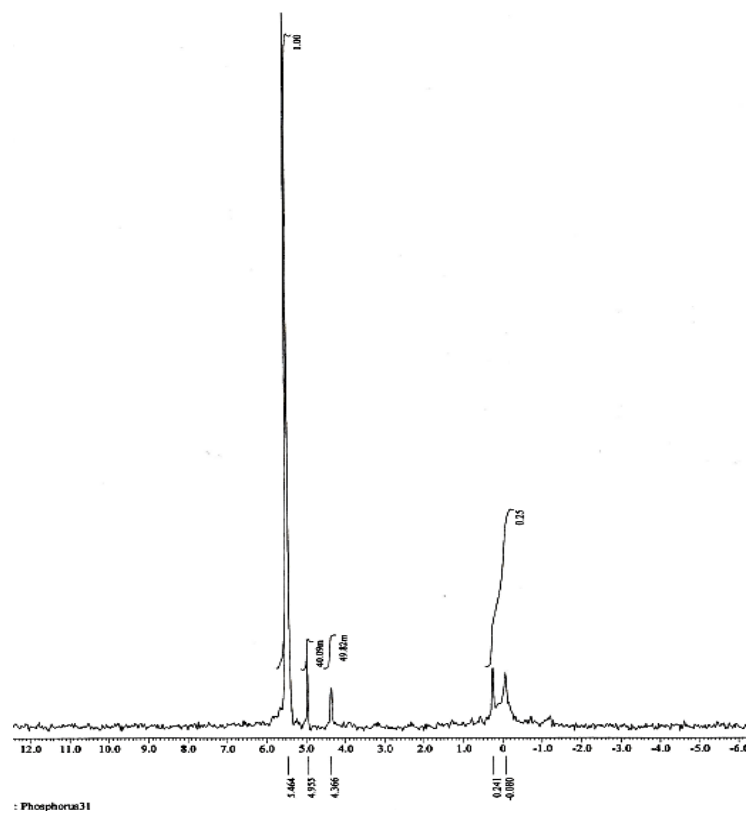


Figure S5. $^{31}\text{P}\{^1\text{H}\}$ -NMR spectra of poly[poly(ethylene glycol Cl-phosphate)-*b*-poly(ethylene glycol) lactate Cl-phosphate] in CDCl_3 .

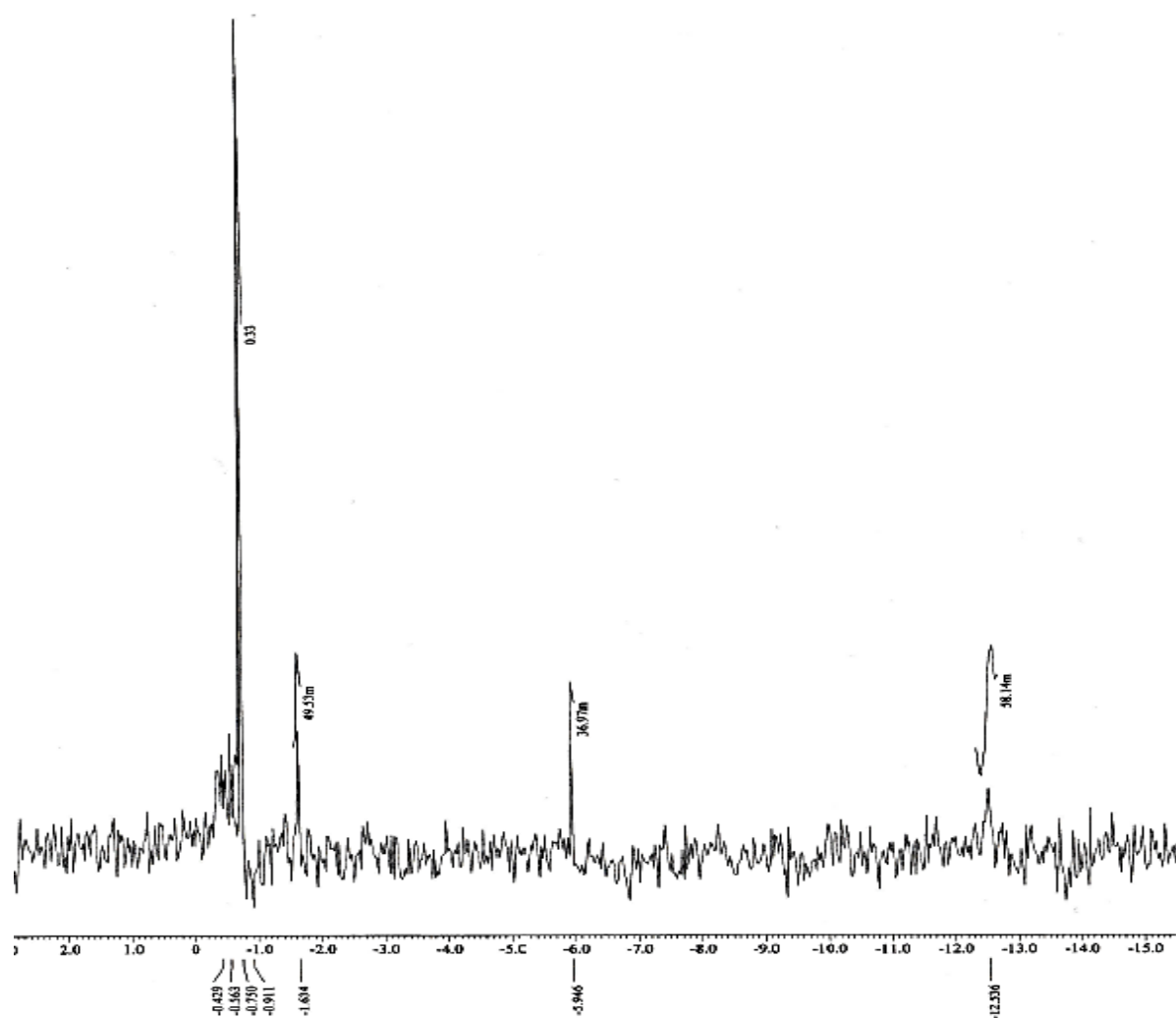


Figure S6. ^{31}P -NMR spectra of poly[hexadecylpoly(ethylene glycol) phosphate-b-hexadecylpoly(ethylene glycol)lactate phosphate] in CDCl_3

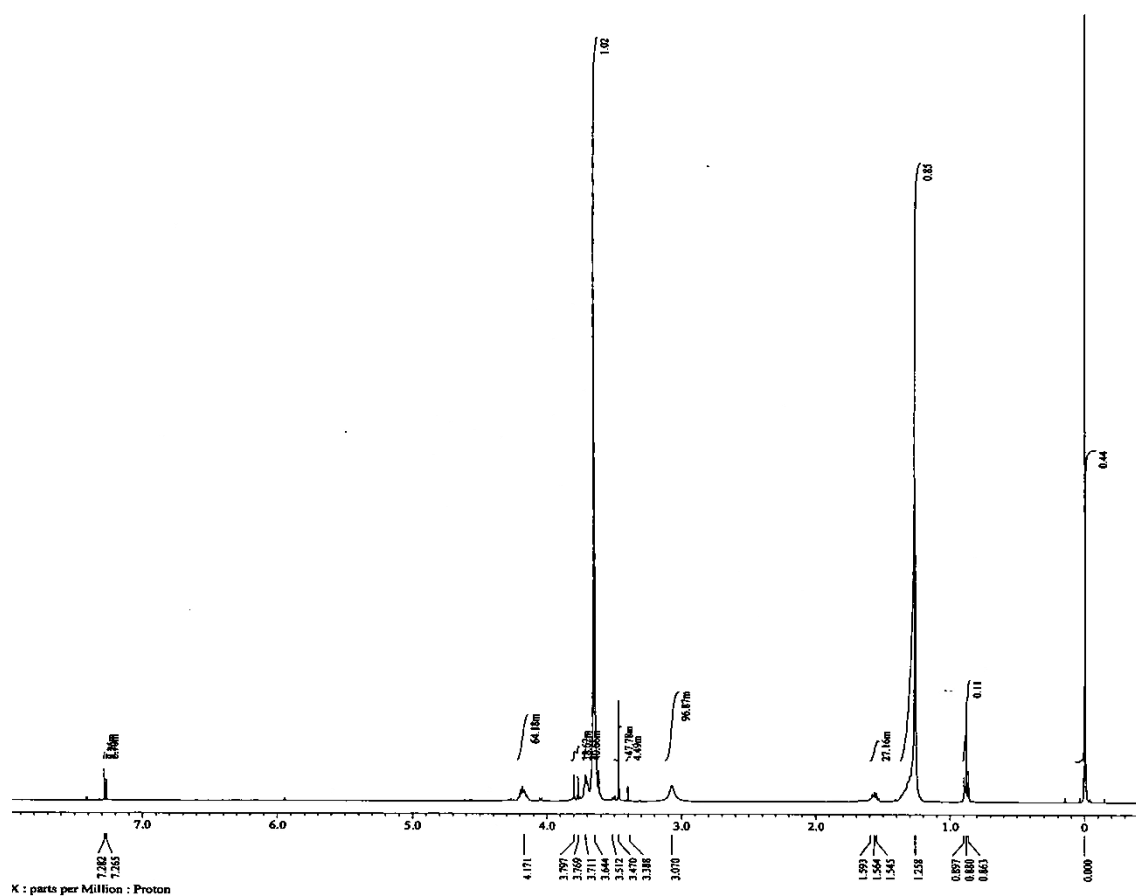


Figure S7. ^1H -NMR spectra of poly[hexadecylpoly(ethylene glycol) phosphate- *b*- hexadecylpoly(ethylene glycol)lactate phosphate) in CDCl_3 .