



## Effects of Reaction Condition and Feed Composition on Thermo-Gelling Behavior of PLGA-PEG-PLGA

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Intelligent thermosensitive formulations based on PLGA-PEG-PLGA triblock copolymer have great potential in biomedical applications, due to their good biocompatibility, biodegradability and injectability. The gelation behavior of the synthesized PLGA-PEG-PLGA triblocks was investigated in this study and the effect of PEG molecular weight and lactide to glycolide molar ratio, as well as the reaction time was investigated. Triblocks with PEG1000 have shown inappropriate gelation; while those with higher molecular weight formed gel at body temperature. The insulin release profiles showed an approximately linear release profile without a non-desirable burst effect. More than 80% of the insulin was released during 4 weeks.