PLGA Nano Particles Stabilized by Water-Soluble Biodegradable PEG-PLA-PEG Triblock Copolymer for Emulsification-Diffusion Method

김용우, 김중현*, 한승훈, 이종은
연세대학교 화학공학과
(jayhkim@yonsei.ac.kr*)

Polymeric particles made of PLGA have been increasingly studied for therapeutic applications such as controlled release and drug targeting. Stealth nanoparticles were investigated to avoid rapid uptake of drug carriers by cell of the mononuclear phargocyte system (MPS) and reticuloendothelial system (RES). Poly(ethyleneglycol) (PEG) is attached onto stealth nanoparticle surface to avoid recognition by cell of the MPS and physical adsorption. Emulsification-Diffusion method was used to prepare stealth nanoparticles. PEG-PLA-PEG tri-block copolymerwas used as surfactant. We determined PEG surface density and size. Variables for preparing nanoparticle were surfactant concentration and PLGA molecular weight of copolymers.