

عنوان مقاله:

Encapsulation of protein in poly(lactic-co-glycolic acid) nanofibers by emulsion electrospinning

محل انتشار:

همایش ملی نانو فناوری و شیمی سبز (سال: 1391)

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خلاصه مقاله:

In this study, nanofibrous scaffolds of poly(lactic-co-glycolic acid) (PLGA) through electrospinning technique were fabricated. Also, PLGA nanofibers with a core-sheath structure encapsulating bovine serum albumin (BSA) as a model protein for hydrophilic bioactive agents were prepared through emulsion electrospinning technique. Morphology of the nanofibers and the core-sheath structure of the emulsion electrospun nanofibers were observed by field-emission scanning electron microscopy (FESEM) and transmission electron microscopy (TEM), respectively. The results of protein release assay demonstrated a sustained release profile of BSA. The nanofibrous scaffold with the capability of encapsulation and controlled release of the protein can be served in tissue engineering applications.

کلمات کلیدی:

Emulsion electrospinning, Nanofibrous scaffold, Controlled release, PLGA

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